**DEPARTMENT OF THE ARMY**
HEADQUARTERS, AREA II SUPPORT ACTIVITY
UNIT #15333
APO AP 96205-5333

REPLY TO
ATTENTION OF:

IMKO-AB-SO

14 July 2005

COMMAND POLICY #10-1

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Community Safety for Joggers, Bicycles, Skateboards, Skates, Roller Blades, Non Motorize Vehicles, Motorcycles and Mopeds

1. REFERENCE: United States Forces Korea Regulation 190-1, 27 April 2005, Motor Vehicle Traffic Supervision.

2. PURPOSE: To establish safety policies for individuals jogging, operating motorcycles, mopeds, bicycles, and other non-powered vehicles for transportation and recreation on US military installations within Area II.

3. APPLICABILITY: This memorandum applies to all personnel using military installations located within the geographical responsibility of the Area II Support Activity.

4. RESPONSIBILITIES:

a. Commanders and activity chiefs will ensure that all assigned sponsors and family members are aware of and comply with the policies and recommendations outlined in this policy letter.

b. All personnel running, jogging, operating motorcycles, mopeds, bicycles, or riding skateboards, scooters or skates on US military installations/off post must comply with traffic rules and regulations set forth in USFK Reg 190-1.

c. Drivers of Army motor vehicles and privately owned vehicles will exercise due caution when encountering runners, joggers, bicyclists, skateboarders or skaters adjacent to roadways.

d. All guests to the installation will be briefed to comply with traffic rules and regulations set forth in USFK Reg 190-1.

5. GENERAL:

a. Motorcycles and Mopeds all personnel are required to wear the following protective equipment while operating or riding as a passenger motorcycle/moped on Area II Installations: a properly fastened approved helmet that meets DOT standards, eye protection (clear goggles or a face shield attached to the helmet), full-fingered gloves, long trousers, long-sleeved shirt or jacket, leather boots or over the ankle shoes.

b. Headphones or earphones will not be used when operating motorcycles, mopeds, bicycles, skateboards, skates, roller blades, or when running, jogging or walking.

c. Reflective Vest: When Jogging, Bicycling, Skateboarding, Rollerskating, Rollerblading or operating a Motorcycle or Moped a high-visibility retro-reflective vest (bright colors for day and reflective for night i.e orange road guard type vests with white reflective striping) will be worn. Reflective belts, arm bands or sleevlets may not be used in lieu of reflective vests. If wearing a backpack, the vest must be worn over the backpack.

6. SAFETY POLICIES AND GUIDELINES:

a. Individual Jogging: The safety of joggers or runners is an individual responsibility. Joggers are pedestrians and must observe the same precautions as those who are walking when crossing roads.

(1) Traffic signals and/or stop signs will be obeyed and pedestrian crosswalks will be used when crossing roads.

(2) Joggers will avoid the use of the main streets and run in single file to the maximum extent possible. Joggers will use jogging paths or sidewalks where available or run on the far-left side of the road, facing traffic when jogging paths or sidewalks are not available.

(3) Challenging or obstructing vehicular traffic is forbidden. Joggers should yield the right of way to vehicular traffic.

(4) Jogging during the hours of darkness or inclement weather is discouraged. Joggers or runners who run will wear reflective safety vest visible in a 360 degree arc around the runner. Riding skateboards, scooters, or roller blades at night is prohibited.

(5) Jogging, skateboarding or skating off the installation is highly discouraged. Extreme care must be given to riding bicycles off post in consideration of the heavy traffic volume on the city streets in the metropolitan area.

b. Bicycle Safety: Bicycles are hard to see, and vehicles may change lanes or turn unexpectedly. Bicycle safety requirements and tips for safe operation of bicycles are as follow:

(1) Bicycles used during hours of darkness will be equipped with front and rear operational lights. The front light will emit visible light a minimum distance of at least 500 feet (150 meters). The rear light will emit visible light a minimum distance of 100 feet (30 meters).

(2) Reflective vest will be worn when riding a bicycle at all times.

(3) Ride close to the right side of the roadway and exercise caution when passing vehicles or pedestrians. Use a bicycle path whenever one is located adjacent to the roadway. Do not ride abreast except on paths or parts of roadways designated for the exclusive use of bicycles. Do not ride a bicycle on sidewalks.

(4) Do not carry anything which prevents the operator from keeping both hands free to control the bicycle. Do not cling to a vehicle or otherwise be propelled by a vehicle. Reckless riding of a bicycle is also prohibited.

(5) Reduce speed during inclement weather, traffic and pedestrian congestion. Always use hand signals when there is no danger of losing control of the bicycle. Be alert for car doors which could be opened suddenly.

(6) Organized MWR runs. During organized daytime MWR events, such as, fun runs or bicycling events, where numbers are used for identification, vests do not need to be worn. Vests will be used for all MWR events conducted at night. Vests will be worn by all road guards used to support MWR events.

c. Scooters, Skateboard/Skating Safety: Sponsors are responsible for the conduct of their dependents and guest while riding, scooters, skateboards or skating. To ensure that scooters, skateboarding and skating (to include roller blades) is conducted safely and to prevent skating/motor vehicle accidents, the following rules are established:

(1) Persons riding scooters, skateboards or skating must obey all traffic control devices, unless otherwise directed or posted. It is essential for skaters to show courtesy and respect for others, especially pedestrians.

(2) Pedestrian crossing areas will be used when skaters cross the roadways. Persons skateboarding will dismount their skateboards when crossing roadways.

(3) No person riding a skateboard or skating will be pulled or otherwise propelled by motorized vehicles or bicycles. Challenging or obstructing vehicular traffic is strictly prohibited.

(4) In addition to mandatory wearing of helmets, skaters are encouraged to use other protective equipment, such as, elbow and kneepads. Youth Service (YS) has a limited amount of safety equipment, available for daily check-out for YS registered youths at Hannam Youth Services and the Yongsan Youth Services Centers.

(5) No persons will propel or ride scooters, skateboards or skates on Yongsan Main Post, Camp Coiner, Camp Kim, UN Compound, TMP, Eighth Army Drive, X Corps Blvd, sidewalks on Eighth Army Drive and X Corps Blvd, or parking lots with a high degree of traffic in the South Post area (i.e., Dragon Hill Lodge, Four Seasons, Walker Center, Commissary, Hospital).

(6) Parking lots within housing areas, unoccupied open areas, such as, basketball courts, unused parking lots and paved playgrounds, parking lots after facility has closed for the day, i.e., Commissary, Toyland, Walker Center, Hannam Village ACS, etc., are the only authorized areas designated for scooters, skateboard and skating usage.

(7) Motorized Skateboards and Kickboards will not be operated on Area II installations. The manufacture of these items is not regulated by standards and specifications that insure the safety of the operator or the public and as such pose a hazard to the Area II community. These items are marketed under many different names some of which include the word scooter but are not to be confused with regular "motor scooters".

7. Violations should be reported to the Military Police Desk at 99-797-4096. In addition, the requirements outlined above will be strictly enforced by military police. Violators and sponsors of dependents who violate this policy will be subject to administrative sanctions.

RONALD C. STEPHENS
COL, SC
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**DEPARTMENT OF THE ARMY**
HEADQUARTERS, AREA II SUPPORT ACTIVITY
UNIT #15333
APO AP 96205-5333

REPLY TO
ATTENTION OF:

IMKO-AB-SO

13 April 2005

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Command Policy 10-2, Area II Respiratory Protection Program (RPP) and Area II Respiratory Protection Program Standing Operating Procedure (SOP)

1. REFERENCES:

a. AR 385-10, 29 Feb 00, The Army Safety Program.

b. AR 11-34, 15 Feb 90, The Army Respiratory Protection Program.

c. DA Pamphlet 385-3, Protective Clothing and Equipment.

d. TB Med 502/DLAM 1000.2, Respiratory Protection Program.

e. Department of Defense Instruction (DoDI), 6055.1, DoD Occupational Safety and Health Program.

f. Title 29, Code of Federal Regulations, Part 1910.134, Respiratory Protection.

g. American National Standards Institute (ANSI) Standard Z88.2, Practices for Respiratory Protection.

2. PURPOSE: To prevent occupational diseases caused by exposure to harmful dusts, fogs, fumes, mists, gases, smokes, sprays, and/or vapors. Describe responsibilities, duties, and the essential elements to establish, execute, and maintain the Area II Support Activity RPP.

3. APPLICABILITY: This policy applies to all military and civilian personnel who perform duties requiring respiratory protection within Area II.

4. POLICY:

a. General.

(1) An effective RPP requires close coordination among workers, supervisors, the civilian personnel advisory office, the fire department, safety office, industrial hygiene office, and occupational health service.

(2) Respirator: A device designed to provide the wearer with respiratory protection against inhalation of airborne contaminants and, for some devices, oxygen-deficient atmospheres.

(3) Respirators are considered an acceptable method of protecting the health of Department of the Army (DA) personnel only under the following circumstances:

(a) When the Area II Industrial Hygienist is satisfied that engineering or work practice controls are not adequate to control the hazard.

(b) During intermittent, nonroutine operations not exceeding one hour per week.

(c) During interim periods while engineering controls are being designed, funded, and installed.

(d) During emergencies.

(e) When required by other Federal Regulation.

(4) Personnel will not be assigned to tasks requiring the use of respirators without proper medical evaluation, training, and fit testing. Personnel who have been determined to be medically competent to use respirators, formally trained in respiratory protection, and properly fit tested are considered qualified respirator users.

(5) Respiratory protective equipment (RPE) will be used only for its intended purpose and will be furnished at no cost to the employee.

(6) Whenever economically feasible technology exists for controlling environmental respiratory hazards, the technology will be implemented. Such methods will include, but not be limited to:

(a) Substitution of less toxic substances.

(b) Installation of local exhaust systems or medical ventilation systems.

(c) Segregation or isolation of processes or operations from the worker.

b. Condition of employment: The ability to use RPE will be a condition of employment when required by the job. Personnel assigned duties involving access to chemical surety materiel must be able to wear Protective Clothing and Equipment (PCE).

c. Restrictions:

(1) Contact Lenses. Contact lenses should not be worn with full face piece respirators, helmet, hood, or suit.

(2) Facial hair. Respirators equipped with a face piece will not be worn if facial hair comes between the sealing periphery of the face piece and the face, or if facial hair interferes with valve functions.

d. Area markings: Each area and operation requiring RPE will be identified and posted to inform personnel of the work hazards or health risks involved and type of respirator required.

e. Only National Institute for Occupational Safety and Health (NIOSH) approved respirators will be used.

5. RESPONSIBILITIES:

a. The Area II Commander:

(1) Establish an Area II RPP.

(2) Provide sufficient funds, facilities, and qualified personnel to effectively and efficiently perform all duties required by the RPP.

(3) Appoint an Installation Respirator Program Director (IRPD).

(4) Appoint individuals to act as Unit Respirator Program Officers (URPOs).

b. Area II Safety Manager will:

(1) Administer the program in accordance with the referenced standards and monitor the effectiveness and compliance with RPE requirements.

(2) Ensure that corrective actions are promptly taken to correct deficiencies detected in the RPP.

(3) Provide direction to the IRPD to plan, program, and annually evaluate and update the Area II RPP as needed.

(4) Provide guidance to supervisors in the preparation of a unit SOP on respirator use for their particular work area.

(5) Approve any SOPs prepared for respirator use.

(6) Conduct random inspections to determine if RPE is properly selected, used, cleaned, maintained, stored, and disposed of.

(7) Provide training and guidance to the IRPD.

(8) Approve or disapprove routine entry into an immediately dangerous to life or health (IDLH) environment including confined spaces.

(9) Coordinate with the fire department supervisor to ensure training of firefighters using RPE has been completed.

c. Area II Industrial Hygienist (IH):

(1) Perform surveys of employee workplaces to identify respiratory hazards. Determine the degree of hazard posed by occupational exposures. Provide a written hazard survey report to the workplace supervisor and the Area II safety manager and make recommendations for reducing or eliminating workplace exposure hazards.

(2) Recommend engineering controls. Evaluate engineering controls.

(3) Follows the direction provided in reference 1g when recommending that RPE be used.

(4) Determine which personnel and operations require the use of RPE and advise the supervisor on the type of RPE that should be used. When recommending RPE, utilize the "Respirator Selection Form" (Appendix A-1) to document the selection.

(5) Serve as technical consultant for the Area II safety manager and Area II workplace supervisor.

(6) Provide technical assistance to assess the overall effectiveness of the Area II RPP.

(7) Conduct random inspections to determine if RPE is properly selected, used, cleaned, maintained, stored, and disposed of.

d. Occupational Health Service:

(1) Perform preplacement examinations and annual medical surveillance on all employees who have been identified by IH as exposure to respiratory hazards while in the performance of their official duties.

(2) Determine by medical evaluation if workers assigned to tasks requiring the use of respirators are physically, psychologically, and physiologically able to perform work while wearing prescribed respiratory protection.

(3) Review the form "Questionnaire for Respirator Users" (Appendix A-2) and perform Pulmonary Function Test (PFT) if indicated.

(4) Review and sign the form "Respiratory Clearance Form" (Appendix A-3), Part II under the condition that Respiratory Clearance Form" (Appendix A-3), Part I is completely filled out and signed by supervisor before visit to occupational health service.

(5) Consult Occupational Health Physician for abnormal PFT findings and refer patients appropriately.

e. Installation Respirator Program Director (IRPD):

(1) Plan, program, and annually evaluate the Area II RPP with assistance from Area II IH, and occupational health nurse.

(2) Train URPOs, supervisors and respirator users.

(3) Provide respirator qualitative/quantitative fit testing.

(4) Provide the form, "Respirator Quantitative Fit Test" (Appendix A-4) to respirator user after determining that all requirements for medical evaluations and qualitative/quantitative fit testing are met.

(5) Coordinate with the Area II IH and supervisor about the type of RPE or replacement parts to be purchased or used.

(6) Ensure the URPOs maintain records of monthly inspections conducted on emergency-use respirators and self-contained breathing apparatus (SCBAs).

f. Unit Respirator Program Officers (URPOs):

(1) Be designated by the unit commander or activity supervisor in writing as the URPO.

(2) Function as the unit's point of contact.

(3) Contact the IRPD and schedule initial and annual respirator quantitative fit test as required by reference 1a.

(4) Request training of all respirator users as required by reference 1a.

(5) Maintain a copy of "Activity Log for Respirator" (Appendix A-4) forwarded by supervisor. File all medical clearance forms, fit testing forms, training records, inspection records, and unit SOP, etc.

g. Supervisors:

(1) Prepare and update a current Inventory of Hazardous Materials (Appendix A-5) for hazardous chemicals used and stored in the workplace. Also, maintain the Material Safety Data Sheets (MSDSs) for all hazardous materials.

(2) Request an assessment from the Area II IH for any working conditions considered to present a hazardous occupational exposure.

(3) Substitute non-hazardous chemicals for hazardous chemicals when possible.

(4) Submit work orders or procure equipment to acquire engineering controls.

(5) Develop a unit SOP for respirator use and obtain approval for the unit SOP from the Area II safety manager.

(6) Budget for and provide RPE and replacement parts to personnel when required.

(7) Obtain only approved RPE and replacement parts as specified by Area II IH office and issue RPE to users at no cost.

(8) Update the form, "Activity Log for Respirator" (Appendix A-6) and forward it to the URPD.

(9) Familiarize respirator users with the unit SOP.

(10) Ensure workers perform proper respirator maintenance and care.

(11) Ensure that nonfunctional respirators are turned in to the URPO.

(12) Do not permit workers to perform tasks requiring a respirator when a respirator is not being worn or an effective fit can not be obtained.

(13) Ensure that employees in the RPP receive an annual medical evaluation. Provide employees with "Respiratory Clearance Form (Appendix A-3) completely filled out and signed by supervisor before visit to occupational health service

(14) Report any operational processing changes in the workplace to the Area II safety manager and Area II IH.

h. Chief, Fire Department and Emergency Service:

(1) Provide training for firefighters using RPE in coordination with Area II safety manager and Area II IH.

(2) Monthly inspect all emergency use respirators and Self-Contained Breathing Apparatus (SCBA).

(3) Respond to emergency situations where a SCBA would be required to enter a contaminated atmosphere.

(4) Establish and update SOP for SCBAs.

(5) If breathing air compressors are used in the Fire Department and Emergency Service, establish procedures for monitoring the breathing air quality for air-supplied respirators and perform quality assurance evaluations.

i. Directorate of Public Works will:

(1) Install and maintain breathing air systems that are capable of providing Grade D breathing air where required, to include the use of only "oil-free" compressors designed for breathing air systems. The compressor for supplying breathing air will be equipped with the necessary safety and standby devices given in reference 1g, paragraph 2-12 d.

(2) Establish a system to test and ensure that only Grade D quality air is used. The requirements for Grade D breathing air will be met as defined in American National Standards Institute (ANSI)/Compressed Gas Association (CGA) Specification G-7.1 per reference 1a.

(3) All oil lubricated compressors require either a high temperature alarm or carbon monoxide alarm.

(4) Maintain compressed air breathing system alarms in an operable manner.

(5) Implement a schedule of routine maintenance for servicing and inspecting airline purification panels and changing filters and cartridges as necessary.

j. Civilian Personnel Advisory Office:

(1) Provide support to supervisors and other individuals responsible for ensuring or enforcing the RPP requirements.

(2) Develop job descriptions to address requirements for respirator use.

(3) Identify individual's ability to use Respiratory Protection Equipment (RPE) as a condition of employment when required by the nature of the job.

(4) Ensure new employees received medical evaluation for identified respiratory protection positions.

(5) Notify respirator users and their supervisors of the annual medical evaluation and forward one copy of notification letter to occupational health service office.

k. Respirator Users.

(1) Be familiar with the local implementing regulation and the unit SOP in the workplace. The SOP shall be developed for respirator use and maintenance.

(2) The SOP shall be published and available to all respirator users for the particular jobs/tasks

(3) Be trained and instructed in selection, use maintenance and care of a respirator prior to initial use and periodically to maintain general knowledge of his/her respirator. Maintain all required records. Training document will be forwarded to civilian personnel advisory office to update his/her personnel record.

(4) Wear respirator at all times in areas, or during work assignments, where its use is designated.

(5) Be responsible for the primary maintenance and care of their respirators.

(6) Store RPE in a clean and sanitary location within the work center to protect against dust, sunlight, heat, extreme cold, excessive moisture, and damaging chemicals.

(7) Perform positive and negative pressure checks before each use to ensure satisfactory fitting.

(8) Inspect his/her respirator before and after each use for signs of pliability, deterioration, or need of replacement parts.

(9) Respirators in need of repairs or replacement of parts will be maintained by a qualified/competent person with parts designated specific to that respirator.

(10) Notify their immediate supervisor of a nonfunctional respirator.

(11) Read and maintain instructional manual when respirator is issued.

6. COORDINATION AND LIAISON

An effective RPP requires close liaison among workers; supervisors; local labor organization; where applicable; the Area II safety manager, Area II IH, occupational health nurse, civilian personnel advisory officer, chief, fire department and emergency services, IRPD, URPO, and supervisor to safeguard life and health through the proper selection, use, and maintenance of respirators.

7. AREA II RESPIRATORY PROTECTION PROGRAM STANDING OPERATING PROCEDURE (SOP)

a. The IRPD, in coordination with the Area II safety manager and Area II IH, will prepare a Area II Respirator SOP that includes all information and guidance necessary for the proper respirator selection, use, care, maintenance, fit testing, inspection, medical evaluation, and training. Information of organization is listed in Appendix A-7, "List of Key Personnel".

b. The Area II Respiratory Protection program Standing Operating Procedure (SOP). See Appendix A.

8. DOCUMENTATION AND RECORDKEEPING

The following are listed required documents and activity responsible for record keeping.

a. Installation Respirator Program Director (IPRD).

(1) Respiratory Protection Program.

(2) Unit Respirator Program Officer (URPO) Duty Appointment Letter.

(3) Respiratory Clearance Form (Appendix A-3).

(4) Respirator Quantitative Fit Test Form (Appendix A-4).

(5) Training Records.

(6) Unit Respiratory Protection Program Checklist (Appendix A-8)

b. Area II Industrial Hygiene Office.

(1) Hazard Assessment Result.

(2) Respirator Selection Form (Appendix A-1).

c. Occupational Health Service.

(1) Questionnaire for Respirator Users (Appendix A-2).

(2) Respiratory Clearance Form (Appendix A-3).

d. Fire Department and Emergency Service.

(1) Inspection Records

(2) Quality Assurance for Breathing Air System

e. Unit Respirator Program Officer (URPO).

(1) Activity Log for Respirator (Appendix A-6)

(2) Training Records.

f. Civilian Personnel Advisory Office.

a. Job description to address requirement for respirator use.

b. Training Record

g. Supervisor.

(1) Hazard Assessment Result provided by Area II IH.

(2) Inventory of Hazardous Material (Appendix A-5).

(3) Unit Respirator Standing Operating Procedure (SOP).

(4) Respiratory Selection Form (Appendix A-1).

(5) Activity Log for Respirator (Appendix A-6).

h. Respirator User.

(1) Respiratory Clearance Form (AppendixA-3).

(2) Respirator Quantitative Fit Test Form (Appendix A-4).

(3) Training Records.

(4) Instructional Manual of Respirator.

9. PROGRAM EVALUATION.

a. IRPD shall conduct evaluations of the workplace to ensure that the unit RPP is being properly implemented. The "Unit Respiratory Protection Program Checklist" (Appendix A-8) can be used with another reference.

b. IRPD shall regularly consult employees required to use respirators to assess the employee's views on program effectiveness and to identify any problems.

c. Any problems that are identified during this assessment shall be corrected.

10. Point of contact is Mr. Jeffrey Hyska, Area II Safety Manager at 738-4643/7206.

TIMOTHY K. McNULTY
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Encl
Appendix A

DISTRIBUTION:
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# APPENDIX A

## AREA II RESPIRATORY PROTECTION PROGRAM (RPP)
## STANDING OPERATING PROCEDURE (SOP)

**Updated: 13 April 2005**

**Provided By**

**Area II Support Activity Installation Safety Office**
**DSN: 738-7206/4643**

## APPENDIX A

### Table of Content

**APPENDIX A**

# AREA II RESPIRATORY PROTECTION PROGRAM STANDING OPERATING PROCEDURE (SOP)

1. PURPOSE.

This SOP is to provide a written procedure regarding compliance for employees using respiratory protection and ensure the proper care and use of respiratory equipment.

2. OBJECTIVES.

a. The objective is to limit occupational exposure when working, supervising or inspecting in an area where it has been determined or suspected that exposure to toxic substances exceeds permissible levels or where there is decreased oxygen, which could lead to disease or death.

b. The primary objective shall be to prevent atmospheric contamination by engineering controls. When effective engineering controls, such as ventilation or use of less toxic materials are not feasible to provide for emergency or abnormal conditions, appropriate respirators will be used. Possible emergency and routine uses of respirators should be anticipated and planned for. Information and guidance is necessary for their proper selection, use and care.

3. APPLICABILITY.

The SOP applies to all personnel who have met the requirements of AR 11-34 and are properly enrolled in the RPP. It will be available for inspection, upon request, by all employees and their designated representative.

4. REQUIREMENTS.

a. This SOP is a guideline for employees who are required to use respirators to perform their job. It is also used to control occupational disease caused by breathing air contaminated with harmful dust, fogs, fumes, mists, gases, smokes, sprays, or vapors.

b. Area II Industrial Hygienist will perform worksite inspections and evaluations of operations to determine the type of respirator protection that is best suited for the hazards and tasks.

c. Respirators will be provided by the employer/supervisor when necessary to protect the health of the employee. Examples of work which may require the use of respirators includes, but is not limited to:

- Asbestos abatement activities
- Abrasive blasting
- Cutting or melting lead or stripping lead-based paints from surfaces
- Welding or burning
- Painting
- Using solvents, thinners, or degreasers
- Any work which generates large amounts of dust
- Working in confined space
- Sewage, water treatment plants, some excavations

d. Respirators shall be suitable for the hazards to which the worker is exposed. Hazard determination and exposure assessment will be made by the Industrial Hygienist (IH).

e. The supervisor shall establish and maintain his/her units respirator SOP which is subject to periodic review and evaluation. All employees are subject to its application and use.

f. The required process and actions for initial respirator issue are summarized in Appendix A-9 and information of organization/name/phone number are listed in Appendix A-7.

g. Users shall be trained and instructed in the proper use and maintenance of his/her respirator and its limitations. Respirators will be issued to individuals and not multi-user respirators.

5. TYPES OF RESPIRATOR.

Various respiratory devices are approved for use within the limits prescribed by the manufacturer. The following list is the respiratory devices used by employees:

a. Air purifying mask - particulate removing filter respirator. They are generally called "dust", "mist", or "fume" mask and are used in minimal exposure areas.

(1) Are disposable (single -use).

(2) Are available in the quarter face piece style.

(3) Two-strap units are recommended over single strap units.

(4) It does not provide oxygen, so it can never be worn in oxygen deficient atmosphere.

(5) It does not provide protection in atmospheres containing gases or vapors.

b. Air purifying respirator - uses chemical cartridges and canisters for removal of gases and vapor.

(1) Removes gases and vapors by trapping them on materials - such as activated charcoal.

(2) Are available in half face and full face piece.

(3) Negative air purifying respirator has a cartridge or canister which is designed to remove a particular contaminant. Specific labeling and color-coding on each cartridge will clarify its use and level of protection.

(4) It does not provide oxygen, it cannot be worn in an oxygen deficient atmosphere.

(5) It may not be used if the chemical to be protected against lacks adequate warning properties - odor, taste, or irritation. These warnings are necessary to alert the user that: (i) the chemical absorbent is saturated, and (ii) the contaminant is passing through the cartridge or canister and you are breathing the contaminant.

(6) They must not be worn in an atmosphere that's Immediately Dangerous to Life and Health. (IDLH).

c. Self-Contained Breathing Apparatus (SCBA) - With these devices, the wearer carries air or oxygen on his person in the form of a tank of compressed air which is supplied to the face piece. It provides the total breathing requirements, not just the oxygen requirements, and its service life is usually about 30 minutes or less. There is no need for an airline or outside air supply. The SCBA is not protection from high temperatures, certain toxic gases that are skin absorbable, and radiation. All approved SCBA's incorporate an audible alarm which notifies the wearer when the air (oxygen) supply drops to a predetermined level of approximately 5 minutes remaining. When this alarm sounds, the wearer must exit the contaminated area immediately.

(1) With use of this type of respirator, the employees must always work in pairs and stay in visual or oral contact. The entry team should be in pairs with the back up safety team or person in a safe area with contact maintained by sight, lifeline, radio, or voice for appropriate rescue.

(2) Employees must stay in contact with the wall or safety line.

- Employees need to work efficiently to conserve air.

- Do not remove the face piece if you run out of air. Disconnect the hose and place inside of clothing.

- Maintenance of the equipment follows the standard procedure for respiratory devices with special attention given to filling the cylinders after each use.

- Training for the use of SCBA equipment is under the direction of installation of respirator program director (IRPD).

- Training records are kept and available for review at the request of the employee or designated representative.

6. MEDICAL EVALUATION.

a. For an employee who requires wearing a respirator, a medical evaluation will be administered during the employee's normal working hours or at a time of convenience to the employee.

b. The employee must bring Respiratory Clearance Form (Appendix A-3) filled out completely and signed by supervisor before the medical evaluation.

c. The employee will be provided with "Questionnaire for Respirator Users (Appendix A-2) at the Occupational Health Service along with instructions on how to fill it out.

d. The employee may have Pulmonary Function Test performed on him/her if indicated based on "Questionnaire for Respirator Users (Appendix A-2).

e. The employee shall have an opportunity to discuss the questionnaire and examination results with Occupational Health Nurse or Physician or other Licensed Health Care Professional (PLHCP).

f. Occupational Health Nurse or PLHCP will make a written recommendation whether or not an employee is able to wear a respirator and any restrictions on the use of respirators if there are any.

g. The following information must be provided on Respiratory Clearance Form (Appendix A-3), Part I by Supervisor before Occupational Health Nurse or PLHCP makes a recommendation concerning an employee's ability to use a respirator:

(1) The type of the respirator to be used by the employee.

(2) The duration and frequency of respirator use (including use for rescue and escape).

(3) The expected physical work effort.

(4) Additional protective clothing and equipment to be worn.

(5) Temperature and humidity extremes that may be encountered.

h. Occupational Health Nurse or PLHCP will make a written recommendation to supervisor regarding employee's ability to use the respirator on Respiratory Clearance Form (Appendix A-3),

7. TRAINING AND EDUCATION.

a. For safe use of any respirator, it is essential that the user be properly instructed. Both supervisors and employees that will be using respiratory devices will be trained prior to use.

b. Supervisor is responsible for the training of his/her employees in the management of exposure or potential exposure to air contaminants.

c. Training will provide information, give demonstrations, allow hands on training and physically test employees in regard to air contamination and respirator use. Training shall include the following:

(1) Instruction on the nature of the hazards and what may happen if the respirator is not used or not used properly.

(2) Selection of the proper respirator for the job and identification of respirator capabilities and limitations. Review of manufacturer's instructions for each model.

(3) Demonstrations and hands-on training for disassembly, inspection of valves, gaskets, and head straps, and reassembly.

(4) Individual application and adjustment (seal check).

(5) Procedures for cleaning, disinfection, maintenance and storage of the respirator.

(6) How to recognize medical signs and symptoms that may limit or prevent the effective use of the respirator.

(7) Negative and positive pressure checks/tests prior to each use. These checks are not a substitute for fit testing. Respirator users must be properly trained in the performance of these checks and understand their limitations.

(a) Negative Pressure Check:

- Applicability/Limitations: This test cannot be carried out on all respirators. However, it can be used on face pieces of air purifying respirators equipped with tight-fitting respirator inlet covers and on atmosphere supplying respirators equipped with breathing tubes, which can be squeezed or blocked at the inlet to prevent the passage of air.

- Procedure: Close off the inlet opening of the respirator's canister(s), cartridge(s), or filter(s) with the palm of the hand, or squeeze the breathing air tube or block its inlet so that it will not allow the passage of air. Inhale gently and hold for at least 10 seconds. If the face piece collapses slightly and no inward leakage of air into the face piece is detected, it can be reasonably assumed that the respirator has been properly positioned and the exhalation valve and face piece are not leaking.

(b) Positive Pressure Check:

- Applicability/Limitations: This test cannot be carried out on all respirators. However, respirators equipped with exhalation valves can be tested.

- Procedure: Close off the exhalation valve or the breathing tube with the palm of the hand. Exhale gently. If the respirator has been properly positioned, a slight positive pressure will build up inside the face piece without detection of any outward air leak between the sealing surface of the face piece and the face.

(8) Training will occur annually and when the following situations occur.

(a) Changes in the workplace or the type of respirator render previous training obsolete.

(b) The employee's knowledge or use of the respirator indicates that the employee has not retained the required understanding or skill.

(c) Any other situation arises in which training appears necessary to ensure safe respirator use.

8. QUANTITATIVE FIT TESTING (QNFT) FOR RESPIRATOR.

a. Quantitative Fit Testing (QNFT ), using the PortaCount Plus fit test system, is generally performed on both full-face and half-face negative pressure respirators. Fit factors are determined by comparing the particle concentration outside the respirator with the concentration inside the respirator face piece. An acceptable fit is achieved when the respirator wearer successfully completes a series of eight programmed fit test exercises with a designated fit factor or more.

b. Installation Respirator Program Director (IRPD) shall provide quantitative fit test using a PortaCount Plus fit test system in accordance with acceptable OSHA fit test procedure.

c. Unit respiratory protection program officer will schedule for fit testing in coordination with Installation Respirator Program Director (IRPD).

d. The following criteria shall be used to help determine the adequacy of the respirator fit:

(1) Chin properly placed.

(2) Adequate strap tension, not overly tightened.

(3) Fit across nose bridge.

(4) Respirator of proper size to span distance from nose to chin.

(5) Tendency of respirator to slip.

(6) Self-observation in mirror to evaluate fit and respirator position.

e. Fit Test Exercise: The following test exercises are to be performed for all fit testing methods. The test subject shall perform exercises, in the test environment, in the following manner. Each test exercise shall be performed for one minute. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

(1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.

(2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.

(3) Turning head side to side. Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.

(4) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).

(5) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.

***Rainbow Passage***

*When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow.*

(6) Grimace. The test subject shall grimace by smiling or frowning.

(7) Bending over. The test subject shall bend at the waist as if he/she were to touch his/her toes.

(8) Normal breathing. Same as above exercise e (1).

f. Installation Respirator Program Director (IRPD) will forward the form, "Respirator Quantitative Fit Test (Appendix A-4).

g. Employee should report to unit respiratory protection program officer whenever change in the employee's physical condition could affect the respirator's fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

9. USE OF RESPIRATORS

a. When using respirators, respirator users must take precautions in order to prevent face piece seal leakage. Facial hair that comes between the surface of the face piece and the face, or hair that interferes with the face seal or valve functions is prohibited.

b. Any condition or personal protective equipment (i.e.: corrective glasses) that interferes with the face-to-face piece seal or valve function is prohibited.

c. Each time the user conducts a tight-fitting respirator to ensure proper fit by performing a seal check. User seal checks are not substitutes for qualitative or quantitative fit tests. The proper seal check procedures (Positive and/or Negative Pressure Checks) are following:

(1) Face piece Positive Pressure Checks: Close off the exhalation valve and exhale gently into the face piece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

(2) Face piece Negative Pressure Check: Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the face piece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

d. Manufacturer's Recommended User Seal Check Procedures: The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer's procedures are equally effective.

e. Supervisor shall periodically check to determine if respirator users are properly using respirators. Upon request, industrial hygienist shall reevaluate work conditions and employee exposure and stress.

f. Any employee who detects gas or vapor breakthrough, or detects a change in breathing resistance, or detects leakage of the face seal during use must leave the area requiring respirator use.

g. If an employee needs to wash their face and/or face pieces to prevent skin irritation, or change cartridges, this will be performed away from the work area requiring a respirator.

h. Defective respirators shall not be used.

i. Atmospheres that are Immediately Dangerous to Life or Health (IDLH) shall have special entry procedures. Industrial hygienist shall be contacted to evaluate the area/operation and to assist in the development of procedures for entry.

j. The industrial hygienist will determine the required type of respirator and filter/cartridge for the particular job/task. Only appropriate NIOSH-certified respirators and cartridges (filters) will be purchased. Respirator cartridges (filters) purchased after July 10, 1998 shall be selected from one of nine classes: N100, N99, N95, R100, R99, R95, P100, P99, P95.

k. All filters, cartridges and canisters shall be labeled and color coded with the NIOSH approval label. The label shall not be removed and must remain legible.

**LEVELS OF FILTER EFFICIENCY**

| | |
|---|---|
| 95% | 95 |
| 99% | 99 |
| 99.97% (HEPA) | 100 |

**RESISTANCE TO DEGRADATION**

**N:** **N**ot resistant to oil
**R:** **R**esistant to oil
**P**: Oil **P**roof

**EXAMPLES**

For dust, particulates, no oil in the aerosol ---------- any
For dust, particulates need maximum filtration ------- N100
For painting of oil aerosols ---------- R95 or P95 + organic vapor cartridge
For pesticides ---------- N95+ organic vapor cartridge

l. Filters or cartridges are to be replaced as needed or according to instructions for that particular task. Specific situations will include but are not limited to the following:

(1) It becomes damaged.

(2) Seems plugged.

(3) The wearer is able to taste or smell contaminants and odors.

(4) Breathing becomes difficult.

(5) An irritation, dizziness or other distress occurs.

10. MAINTENANCE AND CARE OF RESPIRATOR

a. Cleaning and disinfecting.

(1) Supervisors shall provide cleaning and disinfecting supplies and a place to store respirators.

(2) Respirator user must ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user. The following procedure is recommended for cleaning and disinfecting respirators:

(a) Remove and discard all used filters, cartridges, or canisters.

(b) Disassemble face pieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer.

(c) Mix a solution of soap, water and bleach. Bleach should be not less than 1 to 50 parts of water in order to properly disinfect.

(d) Wash face-piece and breathing tube in a cleaner-disinfectant solution. A hand brush may be used to remove dirt. Solvents that can affect rubber and other parts shall not be used.

- Rinse completely in clean, warm water.

- Air-dry in a clean area in such a way as to prevent distortion.

- Clean other respirator parts as recommended by the manufacturer.

- Inspect valves, head straps, and other parts to ensure proper working condition.
- Replace any defective parts

- Reassemble respirator and replace any defective parts.

- Place in a clean dry plastic bag or other suitable container for storage after each cleaning and disinfection.

b. Storage.

(1) All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the face piece and exhalation valve.

(2) Emergency respirators shall be kept accessible, stored in compartments or in containers that are clearly marked as containing emergency respirators, and stored in accordance with any applicable manufacturer instructions.

c. Inspection.

(1) All respirators will be inspected after each use. Supervisors shall ensure that respirators are inspected before each use and during cleaning.

(2) Inspections shall include a check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the face piece, head straps, valves, connecting tube, cartridges, canisters or filters; and elastomeric parts for pliability and signs of deterioration.

(3) The monthly inspection information (serial number of the device, date of inspection, name of inspector, findings, required remedial action) shall be documented by one of the following means; tag, label or is included in inspection reports stored as paper or electronic files.

(4) Any defects should be reported to supervisor. Damaged respirators will be repaired or replaced.

(5) All emergency respirators and SCBA's shall be inspected at least monthly (ensure the regulator and warning devices function properly) and in accordance with the manufacturer's recommendations.

(6) Air and oxygen cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. Emergency escape-only respirators shall be inspected before being carried into the work area for use.

d. Repairs.

(1) All respirators that fail an inspection shall be removed from service, discarded, repaired, or adjusted.

(2) All repairs or adjustments to respirators are to be made by trained persons with NIOSH-approved parts from the same manufacturer in accordance with the manufacturer's recommendations and specifications. Reducing valves, regulators, and alarms shall be adjusted or repaired only by qualified person.

11. BREATHING AIR QUALITY AND USE.

a. Breathing air for respirators may be supplied from cylinders or air compressors. The requirements for Grade D breathing air will be met as defined in ANSI/Compressed Gas Association (CGA) Specification G–7.1 per 29 CFR 1910.134.

b. Cylinders will be tested and maintained as prescribed in AR 700– 68 /DLAR 4145.25 /NAVSUPIN ST 4440. 128/MCO 10330.2/AFR 67–12 and part 178, title 49, Code of Federal Regulations (49 CFR 178).

c. The compressor for supplying breathing air will be equipped with the necessary safety and standby devices given in TB MED 502/DLAM 1000.2, paragraph 2–12 *d.*

d. Compressed oxygen will not be used in supplied air respirators or in open circuit SCBAs that have previously used compressed air. Oxygen will never be used with airline respirators.

e. Airline couplings will be incompatible with outlets for other gas systems to prevent inadvertent servicing of airline respirators with nonrespirable gases or oxygen. Installation areas having heavy piping or outlet areas with more than one type of gas system will be properly marked with labels, signs, or color coded connectors to further prevent attempts to connect to nonrespirable air supplies.

f. Breathing gas containers will be marked according to TB MED 502/DLAM 1000.2, paragraph 2–12f.

---------- End ----------

# APPENDIX A - 1

## Respirator Selection Form

The proper selection of a respirator depends on the hazards (i.e. dusts, fumes, mists, vapors, biological hazards) and amount of that hazard to which the employee may be exposed. This form will be filled out when Area II Industrial Hygiene performs a hazard assessment for the purpose of recommending respiratory protection .

1. Date:_____

2. Employee Name:_____

3. Job Title: _____

4. Occupational Code:_____

5. Describe Work Area: (Sketch area on separate page if needed).

_____

6. Describe task that may cause exposure:

_____

7. Estimated Length of Task: _____

8. Check potential hazard type(s) present:

- ☐ Gas or Vapor (i.e. formaldehyde, acid gases, aromatics)
- ☐ Particulate (i.e. dusts, lead, asbestos)
- ☐ Biological (i.e. TB)
- ☐ Oxygen Displacement (i.e. Refrigerants, argon)

9. Expected oxygen content of area: _____ (19.5% - 22% is normal)

If oxygen content is normal, an air purifying or powered air purifying respirator may be used. If oxygen content is outside normal conditions a supplied air or SCBA device must be used.

10. Specify contaminant if known:_____

Check **Table 2**, if contaminant has specific standard, this takes precedent over Respiratory Standard. Check the specific standard for recommended respirator.

11. Is the contaminant an eye irritant or can it cause eye irritation at the exposure concentration? YES NO If yes, only a full face, helmet or hood respirator shall be used.

# APPENDIX A - 1

12. Specify expected maximum concentration (MUC) of contaminant: _____

13. Does the substance have an exposure limit?

Agency/Limit: _____ i.e. (ACGIH/TWA, OSHA/PEL)

Concentration: _____ i.e. (ACGIH/TWA, OSHA/PEL)

14. Utilizing the equation TLV x APF = MUC, Determine the APF needed: _____

15. **Recommended Respirator Class** from Table 1: _____

Once the class has been determined, the specific respirator will be selected based on user preference, availability and cost effectiveness.

a. Cartridge Selection: All cartridges must be NIOSH approved and affixed with NIOSH label.

b. For Particulate cartridges: Degradation of filters are rated N-, R-, or P- series and the three levels of efficiency are 95%, 99%, or 99.97%. If no oil particles are present use any series (N-, R-, or P-). If oil particles are present use R- or P-, and if cartridges will be reused for more than one shift use the P- series only.

c. For gas and vapor cartridges: If the contaminant is a liquid, one of 120 listed in the Math Model Table at the OSHA Respiratory advisor link (http://www.osha-slc.gov/SLTC/respiratory_advisor/wood_table/wood_table.html), follow these breakthrough times. Apply safety factors if the humidity is >65% and/or work rates are heavy.

**TABLE 1:**

**RESPIRATOR CLASS NIOSH APF**

| **Air Purifying** | |
|---|---|
| Filtering Facepiece | 10 |
| Half-Mask | 10 |
| Full-Facepiece | 50 |
| **Powered Air Purifying** | |
| Half-Mask | 50 |
| Full-Facepiece | 50 |
| Loose Fitting Facepiece | 25 |

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| | |
|---|---|
| Hood or Helmet | 25 |
| **Supplied Air** | |
| Half-Mask-Demand | 10 |
| Half-Mask-Continuous | 50 |
| Half-Mask-Pressure Demand | 1000 |
| Full-Facepiece Demand | 50 |
| Full-Facepiece Continuous Flow | 50 |
| Full-Facepiece Pressure Demand | 2000 |
| Loose Fitting Facepiece | 25 |
| Hood or Helmet | 25 |
| **Self Contained Breathing Apparatus (SCBA)** | |
| Demand | 50 |
| Pressure Demand | 10,000 |

**TABLE 2:**

**SUBSTANCE OSHA STANDARD**

| | |
|---|---|
| Acrylonitrile | 1910.1045 (h), 1915.1045, 1926.1145 |
| Arsenic (inorganic) | 1910.1018 (h), 1915.1018, 1926.1118 |
| Asbestos | 1910.1001 (g), 1915.1001 (h), 1926.1101 |
| Benzene | 1910.1028 (g), 1915.1028, 1926.1128 |

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| | |
|---|---|
| 1,3-Butadiene | 1910.1051 (h) |
| Cadmium | 1910.1027 (g), 1915.1027, 1926.1127 (g), 1027 |
| Coke oven emissions | 1910.1029 (g), 1926.1129 |
| Cotton dust | 1910.1043 (f) |
| 1,2-Dibromo-3-chloropropane | 1910.1044 (h), 1915.1044, 1926.1144 |
| Ethylene oxide | 1910.1047 (g), 1915.1047, 1926.1147 |
| Formaldehyde | 1910.1048 (g), 1915.1048, 1926.1148 |
| Lead | 1910.1025 (f), 1015.1025, 1926.62 (f) |
| Methylene chloride | 1910.1052 (g), 1915.1052, 1926.1152 |
| Methylenedianiline | 1910.1050 (h), 1915.1050, 1926.60 (i) |
| Vinyl Chloride | 1910.1017 (g), 1915.1017, 1926.1117 |

16. Industrial Hygienist: Print Name _____ Signature _____

NSN 7540-00-634-4178

600-108 *

| HEALTH RECORD | CHRONOLOGICAL RECORD OF MEDICAL CARE |
|---|---|
| DATE | SYMPTOMS, DIAGNOSIS, TREATMENT, TREATING ORGANIZATION *(Sign each entry)* |

## Questionnaire for Respirator Users

HT Job Title:

WT Phone Number:

AGE A phone number where you can be reached by the health care professional

SEX who reviews this questionnaire (include the Area Code):

B.P The best time to phone you at this number:

P Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes ____ No ____

Check the type of respirator you will use (you can check more than one category):

a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. _____ Other type (for example, half-or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

Have you worn a respirator (circle one): Yes ____ No ____

If "yes", what type(s):

1 a. Do you currently smoke tobacco, or have you smoked tobacco in the last month? Yes ____ No ____

b. Have you smoked tobacco for more than 10 years (total) in the past?

2 Have you ever had any of the following conditions?

a. Seizures (fits): Yes ____ No ____

b. Diabetes (sugar disease): Yes ____ No ____

c. Allergic reactions that interfere with your breathing: Yes ____ No ____

d. Claustrophobia (fear of closed-in places): Yes ____ No ____

e. Trouble smelling odors: Yes ____ No ____

PATIENT'S IDENTIFICATION *(Use this space for Mechanical Imprint)*

RECORDS MAINTAINED AT:

| PATIENT'S NAME *(Last, First, Middle Initial)* | | SEX |
|---|---|---|
| RELATIONSHIP TO SPONSOR | STATUS | RANK/GRADE |
| SPONSOR'S NAME | | ORGANIZATION |
| DEPART./SERVICE | SSN/IDENTIFICATION NO. | DATE OF BIRTH |

CHRONOLOGICAL RECORD OF MEDICAL CARE STANDARD FORM 600 (Rev. 5-84)

| DATE | SYMPTOMS, DIAGNOSIS, TREATMENT, TREATING ORGANIZATION *(Sign each entry)* |
|---|---|
| (Con'td) | **Questionnaire for Respirator Users** |
| 3 | Have you ever had any of the following pulmonary or lung problems? |
| | a. Asbestosis: Yes ____ No ____ |
| | b. Asthma: Yes ____ No ____ |
| | c. Chronic bronchitis: Yes ____ No ____ |
| | d. Emphysema: Yes ____ No ____ |
| | e. Pneumonia: Yes ____ No ____ |
| | f. Tuberculosis: Yes ____ No ____ |
| | g. Silicosis: Yes ____ No ____ |
| | h. Pnemothorax (collapsed lung): Yes ____ No ____ |
| | I. Lung Cancer: Yes ____ No ____ |
| | j. Broken ribs: Yes ____ No ____ |
| | k. Any chest injuries or surgeries: Yes ____ No ____ |
| | l. Any other lung problem that you've been told about: Yes ____ No ____ |
| 4 | Do you currently have any of the following symptoms of pulmonary or lung illness? |
| | a. Shortness of breath: Yes ____ No ____ |
| | b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes ____ No ____ |
| | c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes ____ No ____ |
| | d. Have to stop for breath when walking at your own pace on level ground? |
| | e. Shortness of breath when washing or dressing yourself: Yes ____ No ____ |
| | f. Shortness of breath that interferes with your job? Yes ____ No ____ |
| | g. Coughing that produces phlegm (thick sputum): Yes ____ No ____ |
| | h. Coughing that wakes you early in the morning: Yes ____ No ____ |

NSN 7540-00-634-4178 600-108

| HEALTH RECORD | CHRONOLOGICAL RECORD OF MEDICAL CARE |
|---|---|
| DATE (Con'td) | SYMPTOMS, DIAGNOSIS, TREATMENT, TREATING ORGANIZATION *(Sign each entry)* |

**Questionnaire for Respirator Users**

| | | |
|---|---|---|
| | l. Coughing that occurs mostly when you are lying down: | Yes ____ No ____ |
| | j. Coughing up blood in the last month: | Yes ____ No ____ |
| | k. Wheezing: | Yes ____ No ____ |
| | l. Wheezing that interferes with your job: | Yes ____ No ____ |
| | m. Chest pain when you breathe deeply: | Yes ____ No ____ |
| | n. Any other symptoms that you think may be related to lung problems: | |
| 5 | Have you ever had any of the following cardiovascular or heart problems? | |
| | a. Heart attack: | Yes ____ No ____ |
| | b. Stroke: | Yes ____ No ____ |
| | c. Angina: | Yes ____ No ____ |
| | d. Heart failure: | Yes ____ No ____ |
| | e. Swelling in your legs or feet (not caused by walking): | Yes ____ No ____ |
| | f. Heart arrhythmia (heart beating irregularly): | Yes ____ No ____ |
| | g. High blood pressure: | Yes ____ No ____ |
| | h. Any other heart problem that you've been told about: | Yes ____ No ____ |
| 6 | Have you ever had any of the following cardiovascular or heart symptoms? | |
| | a. Frequent pain or tightness in your chest: | Yes ____ No ____ |
| | b. Pain or tightness in your chest during physical activity: | Yes ____ No ____ |
| | c. Pain or tightness in your chest that interferes with your job: | Yes ____ No ____ |
| | d. In the past two, years, have you noticed your heart skipping or missing a beat: | |
| | e. Heartburn or indigestion that is not related to eating: | Yes ____ No ____ |
| | f. Any other symptoms that you think may be related to heart or circulation problems: | Yes ____ No ____ |

PATIENT'S IDENTIFICATION *(Use this space for Mechanical Imprint)*

RECORDS MAINTAINED AT: ▶

| PATIENT'S NAME *(Last, First, Middle Initial)* | | SEX |
|---|---|---|
| RELATIONSHIP TO SPONSOR | STATUS | RANK/GRADE |
| SPONSOR'S NAME | ORGANIZATION | |
| DEPART./SERVICE | SSN/IDENTIFICATION NO. | DATE OF BIRTH |

CHRONOLOGICAL RECORD OF MEDICAL CARE **STANDARD FORM 600** (Rev. 5-84)
Prescribed by GSA and ICMR

| DATE | SYMPTOMS, DIAGNOSIS, TREATMENT, TREATING ORGANIZATION *(Sign each entry)* |
|---|---|
| (Con'td) | **Questionnaire for Respirator Users** |
| 7 | Do you currently take medication for any of the following problems? |
| | a. Breathing or lung problems: Yes ___ No ___ |
| | b. Heart trouble: Yes ___ No ___ |
| | c. Blood pressure: Yes ___ No ___ |
| | d. Seizure (fits): Yes ___ No ___ |
| 8 | If you've used a respirator, have you ever had any of the following problems? |
| | (If you've never used a respirator, check the following space and go to question 9:) |
| | a. Eye irritation: Yes ___ No ___ |
| | b. Skin allergies or rashes: Yes ___ No ___ |
| | c. Anxiety: Yes ___ No ___ |
| | d. General weakness or fatigue: Yes ___ No ___ |
| | e. Any other problem that interferes with your use of a respirat Yes ___ No ___ |
| 9 | Would you like to talk to the health care professional who will review this questionnaire |
| | Yes ___ No ___ |
| | Questions 10 to 15 below must be answered by every employee who has been selected to use eithe full - facepiece respirator or a self - contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary. |
| 10 | Have you ever lost vision in either eye (temporarily or permanently) Yes ___ No ___ |
| 11 | Do you currently have any of the following vision problems? |
| | a. Wear contact lenese : Yes ___ No ___ |
| | b. Wear glasses : Yes ___ No ___ |
| | c. Color blind : Yes ___ No ___ |
| | d. Any other eye or vision problem : Yes ___ No ___ |
| 12 | Have you ever had an infury to your ears, including a broken ear dr Yes ___ No ___ |

| HEALTH RECORD | CHRONOLOGICAL RECORD OF MEDICAL CARE |
|---|---|
| DATE | SYMPTOMS, DIAGNOSIS, TREATMENT, TREATING ORGANIZATION *(Sign each entry)* |
| (Con'td | **Questionnaire for Respirator Users** |
| | |
| 13 | Do you currently have any of the following hearing problems? |
| | a. Difficulty hearing : Yes ___ No ___ |
| | b. Wear a hearing aid : Yes ___ No ___ |
| | c. Any other hearing or ear problem: Yes ___ No ___ |
| 14 | Have you ever had a back injury : Yes ___ No ___ |
| 15 | Do you currently have any of the following musculoskeletal problems? |
| | a. Weakness in any of your arms, hands, legs, or feet: Yes ___ No ___ |
| | b. Back pain: Yes ___ No ___ |
| | c. Difficulty fully moving your arms and legs : Yes ___ No ___ |
| | d. Pain or stiffness when you lean forward or backward at the Yes ___ No ___ |
| | e. Difficulty fully moving your head up or down: Yes ___ No ___ |
| | f. Difficulty fully moving your head side to side: Yes ___ No ___ |
| | g. Difficulty bending at your knees : Yes ___ No ___ |
| | h. Difficulty squatting to the ground : Yes ___ No ___ |
| | I. Climbing a flight of stairs or a ladder carrying more than 25 l Yes ___ No ___ |
| | j. Any other muscle or skeletal problem that interferes with using a respirator : |
| | Yes ___ No ___ |

PATIENT'S IDENTIFICATION *(Use this space for Mechanical Imprint)*

| RECORDS MAINTAINED AT: ▶ | | |
|---|---|---|
| PATIENT'S NAME *(Last, First, Middle Initial)* | | SEX |
| RELATIONSHIP TO SPONSOR | STATUS | RANK/GRADE |
| SPONSOR'S NAME | | ORGANIZATION |
| DEPART./SERVICE | SSN/IDENTIFICATION NO. | DATE OF BIRTH |

## APPENDIX A-3

# Respiratory Clearance Form

## PART I: To be completed by Supervisor

Name of Employee :_____ ID/SSN:_____
(Last) (First) (Middle)

Job Title: _____ Grade/Rank:_____ Occupational Code (4 digit): _____

DOB: _____/_____/_____ Sex (Check one): θ Male θ Female
Month Day Year

Organization: _____ Name of Unit: _____ Shop #: _____

Name of Supervisor: _____ Telephone No:_____

Brief description of work:

_____

_____

_____

_____

| Check the types(s) of resp to be used: | Manufacture: | Check level of work |
|---|---|---|
| _____ N,R , or P disposable respiratory (Filter-mask, non-cartridge type only): | _____ | |
| _____ Half face air purifying | _____ | _____ Light |
| _____ Full face air purifying | _____ | _____ Moderate |
| _____ Positive pressure, hood, air line | _____ | _____ Heavy |
| _____ Self contained breathing apparatus (SCBA) | _____ | _____ Strenuous |

Check the extent of usage.
θ Daily basis
θ Occasionally (specify frequency: _____)

Check length of time resp is worn
θ Less than 1 hour a day
θ 2 or more hours per day (specify frequency:_____)

**Supervisor's Signature:** _____ Date: _____

## PART II: To be completed by Physician / LHCP

The above named employee:

_____ Has/Has not received a pulmonary function test/Questionnaire for respirator users

_____ Is medically qualified to use a respirator with no restrictions

_____ Is not medically qualified to use a respirator.

_____ Is medically qualified to use a respirator with the following restrictions:

_____

_____

**Physician's/LHCP Signature:** _____ **Date:** _____

_____
(Print Name)

## APPENDIX A - 4

# Respirator Quantitative Fit Test

**PART III: To be completed by Respiratory Protection Program Administrator**

### 1) Personnel Data :

Name of Employee : _____ ID/SSN: _____
(Last) (First) (Middle)

Organization: _____ Name of Unit: _____ # Tel No : _____

### 2) Respirator Data:

DATE OF MEDICAL EVALUATION: _____

TYPE OF RESPIRATOR: _____

MANUFACTURE: _____ TYPE/MODEL _____ SIZE: _____

### 3) Quantitative Fit Test:

TEST AGENT: Ambient Particles DEVICE CONTROL NO: 8020 PORTACOUNT Plus

PASS/FAIL LEVEL: Full Face > 500 Half Face > 100 TEST CYCLES: 8 Cycles

| **EXERCISE ( 각 동작 1 분 간격)** | **RESULTS** |
|---|---|
| 1) Normal Breathing (정상 호흡) | Pass____ Fail ____ NA___ |
| 2) Deep Breathing (깊게 호흡) | Pass____ Fail ____ NA___ |
| 3) Side to Side (고개를 좌우로 움직임) | Pass____ Fail ____ NA___ |
| 4) Up and Down (고개를 위아래로 움직임) | Pass____ Fail ____ NA___ |
| 5) Talk (읽기: The Rainbow Passage) | Pass____ Fail ____ NA___ |
| 6) Grimace (입주변 움직임) | Pass____ Fail ____ NA___ |
| 7) Bending Over (허리 굽혔다 폄) | Pass____ Fail ____ NA___ |
| 8) Normal Breathing (정상 호흡) | Pass____ Fail ____ NA___ |

**Test Conductor's Signature :**

**Test Result: PASS ( ) FAIL ( )**

_____

**Print Name:**

**Safety and Occupational Health Specialist**

**OVERALL FIT FACTOR =** _____

I, _____ CERTIFY THAT I HAVE BEEN TRAINED IN THE USE & MAINTENANCE AND
Print Respirator User's Name
FIT-TESTED WITH THE RESPIRATOR ANNOTATED ABOVE. I UNDERSTAND ALL INSTRUCTIONS GIVEN ON THE INDUSTRIAL RESPIRATOR AND UNDERSTAND THAT I AM RESPONSIBLE FOR THIS RESPIRATOR UNTIL IT IS RETURNED.

SIGNATURE: _____ DATE: _____

## APPENDIX A - 5

## INVENTORY OF HAZARDOUS MATERIAL

1. Organiztion/Unit Name: _____

2. Installation Name/Building Number/Room Number: _____

3. Supervisor's Name/Phone Number: _____

| No. | Nomenclature (As used on label and list) | Common Name | National Stock Number | CAS Number | Manufacture | Manufacture Phone No. | Unit of Issue | capacity | Q'ty | MSDS is readily accesible? | Is respirator required ? (Y/N) | Type of required respirator | Expiration Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |

Recorded and Updated By ( Print Name ) _____ PHONE No. _____ Signature _____ Date _____

## APPENDIX A - 6

## ACTIVITY LOG FOR RESPIRATOR

1. Organization /Office Name: _____
2. Name of Supervisor: _____
3. Phone Number: _____
4. Name of Designated Unit Respirator Program Officer _____

| No. | Respirator User's Name(Last, First Middle) | Job Title | Grade/ Occupational Code | ID Number/ SSN | Type of Respirator | Manufacture | Model No. of facepiece | Size | Type of Cartridge/ Filter | Date of Medical Evaluation | Next Med Evalation Date | Date of Fit Tesing | Date of Training | Date of Respirato Issue |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |

_____ PRINT SUPERVISOR'S NAME

_____ SIGNATURE

_____ DATE

# APPENDIX A - 7

## LIST OF KEY PERSONNEL

** The list of key personnel will be updated by the Area II Sam Installation safety Office Updated: 6 April 2005.

| | Title | Office Name | Name | Phone | e-mail | Location |
|---|---|---|---|---|---|---|
| 1. | Installation Commander | Commander, Area II Support Activity | COL. McNulty Timothy K.. | 738-7441 | K.Mcnulty@korea.army.mil | Bldg 4305, SP |
| 2. | Installation Safety Manager | Area II SA, Installation Safety Office | Mr. Hyska, Jeffrey | 738-4643 /7206 | JeffreyM.Hyska@korea.army.mil | Bldg 4305, Rm 121, SP |
| 3 | Installation Respirator Program Director | Area II SA, Safety Office | | 738-7206 | | Bldg 4305, Rm 117, SP |
| 4. | Installation Industrial Hygienist | Industrial Hygiene Ofc, Preventive Medicine, 18th MEDCOM | Mr. Laurence Pazyra<br>Mr. Wiliam Dingui | 736-8517<br>736-7564 | Laurence.Pazyra@kor.amedd.army.mil<br>William.dingui@kor.amedd.army.mil | Bldg #5447, SP |
| 5 | Installation Occupational Health Service | Preventive Service Directorate, Occupational Health Svc, 18th MEDCOM | Mrs. Chang, Helen<br>Mrs. Woo, Han Yi | 736-8513<br>736-6692 | Helen.Chang@kor.amedd.army.mil<br>Han.woo@kor.amedd.army.mil | Bldg #5447, SP |
| 6. | Civilian Personnel Advisory Office | Area II SA, CPAC | Mr. Stark | 738-3641 | Ken.Stark@korea.army.mil | Bldg #4315, SP |
| 7. | Chief, Fire Dep and Emergency Service | Area II SA, DPW, Fire & Emergency Service | Mr. Temporado, Alex | 738-5096/7839 | Temporad@korea.army.mil | Bldg #4203 |
| 8. | Unit Respirator Program Officers | | | | | |

** Name of Installation Respirator Program Director (IRPD) and Unit Respirator Program Officers from all activities/units will be listed after commander's duty appointment.

## APPENDIX A - 8

# Unit Respiratory Protection Program Checklist

Unit/Organization:_____ Date: _____

Supervisor's Name: _____ Phone:_____

**(1) Respiratory protective equipment selection**

____ Are work area conditions and worker exposures properly surveyed?
____ Are respirators selected on the basis of hazards to which the worker is exposed?
____ Are selections made by individuals knowledgeable of proper selection procedures?

**____ (2) Are only certified respirators purchased and used; do they provide adequate protection for the specific hazard and concentration of the contaminants?**

**____ (3) Has a medical evaluation of the prospective user been made to determine physical and psychological ability to wear the selected respiratory protective equipment?**

**____ (4) Where practical, have respirators been issued to the users for their exclusive use, and are there records covering issuance?**

**(5) Respiratory protective equipment fitting**

____ Are the users given the opportunity to try on several respirators to determine whether the respirator they will subsequently be wearing is the best fitting one?
____ Is the fit tested at appropriate intervals?
____ Are users prohibited from wearing contact lenses when using respirators?
____ Is the facepiece-to-face seal tested in a test atmosphere?
____ Are workers prohibited from wearing respirators in contaminated work areas when they have facial hair or other characteristics may cause face seal leakage?

**(6) Respirator use in the work area**

____ Are respirators being worn correctly (i.e. head covering over respirator straps)?
____ Are workers keeping respirators on all the time while in the work area?

**(7) Maintenance of respiratory protective equipment**

***Cleaning and Disinfecting***

____ Are respirators cleaned and disinfected after each use when different people use the same device, or as frequently as necessary for devices issued to individual users?
____ Are proper methods of cleaning and disinfecting utilized?

***Storage***

____ Are respirators stored in a manner so as to protect them from dust, sunlight, heat, excessive cold or moisture, or damaging chemicals?
____ Are respirators stored properly in a storage facility so as to prevent them from deforming?
____ Is storage in lockers and tool boxes permitted only if the respirator is in a carrying case or carton?

***Inspection***

____ Are respirators inspected before and after each use and during cleaning?
____ Are qualified individuals/users instructed in inspection techniques?
____ Is respiratory protective equipment designated as "emergency use" inspected at least monthly (in addition to after each use)?
____ Are SCBA incorporating breathing gas containers inspected weekly for breathing gas pressure?
____ Is a record kept of the inspection of "emergency use" respiratory protective equipment?

***Repair***

____ Are replacement parts used in repair those of the manufacturer of the respirator?
____ Are repairs made by manufacturers or manufacturer-trained individuals?

**(8) Special use conditions**

____ Is a procedure developed for respiratory protective equipment usage in atmospheres immediately dangerous to life or health?
____ Is a procedure developed for equipment usage for entry into confined spaces?

**(9) Training**

____ Are users trained in proper respirator use, cleaning, and inspection?
____ Are users trained in the basis for selection of respirators?
____ Are users evaluated, using competency-based evaluation, before and after training?

**(10) Comments.**

_____

_____

_____

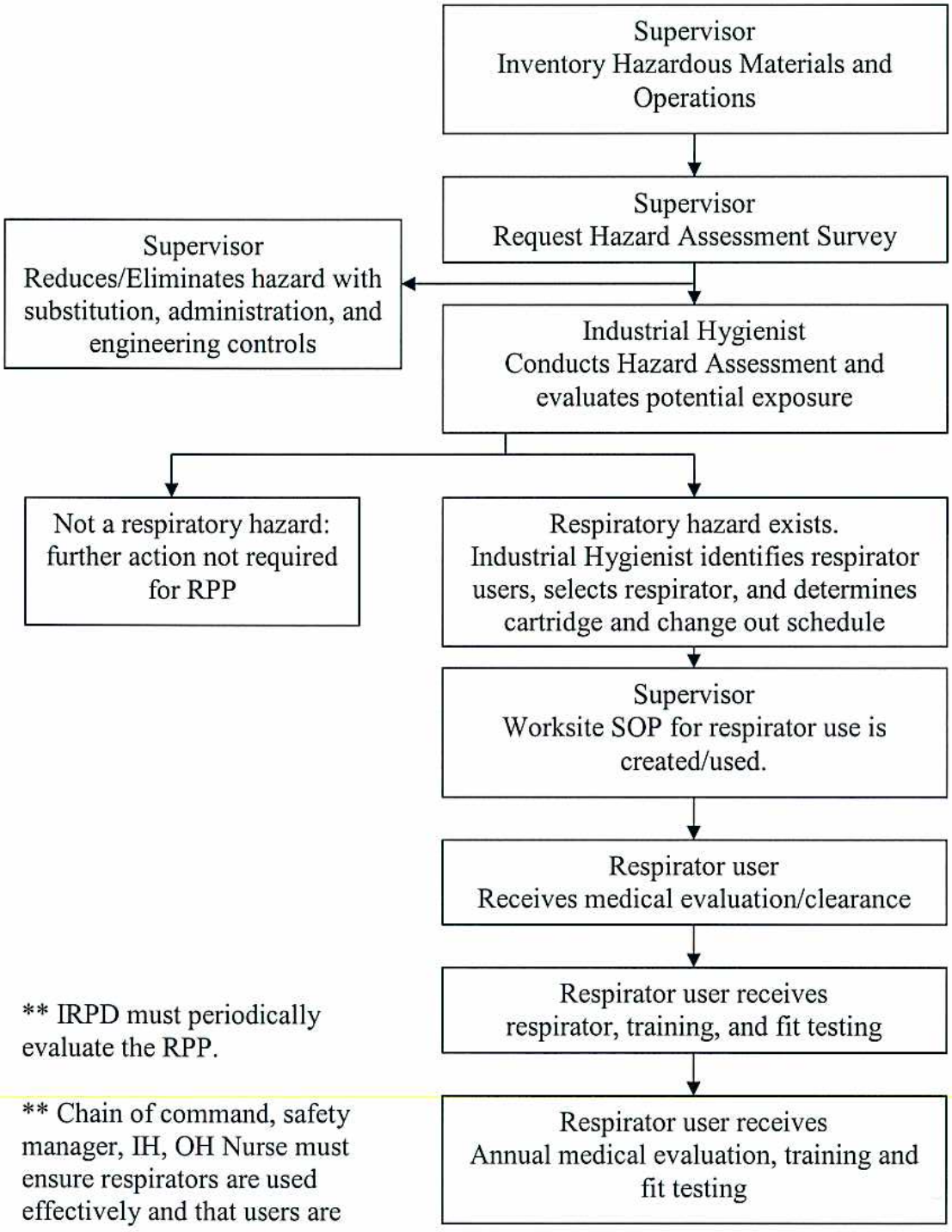
_____

_____

_____ _____ _____

Evaluator's Name and Organization Signature Date

# Respiratory Protection Program Flowchart for Initial Respirator Issue




** IRPD must periodically evaluate the RPP.

** Chain of command, safety manager, IH, OH Nurse must ensure respirators are used effectively and that users are properly trained.

**DEPARTMENT OF THE ARMY**
**HEADQUARTERS, AREA II SUPPORT ACTIVITY**
**UNIT #15333**
**APO AP 96205-5333**

IMKO-AB-SO

6 APR 2005

Command Policy Letter 10-3
Ammunition and Explosives Safety Program
AND
STANDING OPERATING PROCEDURES (SOP)
FOR AREA II SUPPORT ACTIVITY BASIC LOAD STORAGE & AMMUNITION STORAGE FACILITIES

1. REFERENCES:

a. AR 190-11, Physical Security of Arms, Ammunition, and Explosives.

b. AR 385-64, U.S. Army Explosives Safety Program.

c. DA Pam 385-64, Ammunition and Explosives Safety Standards.

d. EUSA Reg 742-2, Inspection of Ammunition for Unit Basic Load and Miscellaneous Activities.

e. EUSA Reg 700-3, Conventional Ammunition.

f. 6th Ordnance Battalion External SOP.

2. PURPOSE: To provide policies and procedures for operation and security of basic load ammunition storage facilities in Area II.

3. SCOPE: This SOP is applicable to all authorized units storing Unit Basic Load (UBL) ammunition and Ammunition for Miscellaneous Activities (AMA) in Yongsan Garrison and Area II basic load ammunition storage facilities and arms rooms.

4. POLICY: The Commander, Area II Support Activity is committed to provide a safe and healthful work environment by limiting personnel exposure to ammunitions and explosives to an absolute minimum.

5. RESPONSIBILITIES: Protection of personnel and property against inherent hazards involving ammunition and explosives is a primary responsibility of all personnel concerned.

a. Director of Logistics (DOL):

(1) Responsible for the oversight of operation of all ammunition storage facilities within Area II.

(2) Responsible for coordinating the maintenance and upkeep of the exterior of Ammunition Holding Area buildings and facilities.

(3) Responsible for spot-checking operations of the ammunition storage facilities to ensure that using units are complying with all provisions of this SOP, safety regulations and appropriate references.

(4) Monitoring and maintaining an updated status of the Net Explosive Weight (NEW) on storage of Hazard Class Division (HC/D) 1.1, 1.2, 1.3, and 1.4 ammunition, to ensure the NEW is not exceeded.

(5) Forward a report identifying the total NEW of HC/D 1.1, 1.2, 1.3, and 1.4 ammunition and explosives in each storage facility in Area II (IAW Appendix A) to the 34th Support Group Safety Office by the 7th day of each month.

(6) Responsible for ensuring the posting of Fire Symbols, Chemical Hazard Symbols, bilingual "No Smoking Within 50 Feet", and Restricted Area signs as applicable.

(7) Responsible for ensuring using units are informed of what types of ammunition are authorized to be stored in the storage facilities.

(8) Responsible for maintaining monthly unit basic load reports from all Area II using units, to include monitoring changes in unit basic load.

(9) Ensuring that units coordinate with facility engineers for testing of Lightning Protection Systems (LPS), doors, gates and fences of the ammunition storage facilities as required by DA Pam 385-64, and maintaining the resulting documentation.

(10) Maintain a Continuity Book for all Area II storage facilities IAW Reference d and Appendix F.

b. Director of Public Works (DPW):

(1) Responsible for coordinating with the installation safety office in the siting and layout preparation of new and revised storage facilities.

(2) Ensuring that Quantity-Distance (QD) arcs are annotated on the installation master planning maps.

(3) Providing engineering, maintenance, fire fighting and emergency response services for the Ammunition Holding Areas (AHA) when necessary.

(4) Establishing a work plan to conduct a visual inspection and a ground test of lightning protection systems as set forth in paragraph 5d below.

(5) Responsible for assigning space based on unit basic load quantities and contingency requirements.

c. Installation Safety Manager (ISM):

(1) Establishing and administering an ammunition and explosives safety program.

(2) Exercising supervision over all units to ensure that ammunition and explosives safety procedures are implemented and maintained adequately.

(3) Reviewing ammunition and explosives safety site plans and facility designs for new or modified explosives sites or facilities within the safety areas of explosives operations.

(4) Reviewing and processing explosives safety waivers, exemptions for facilities and equipment, and providing the commanders with the necessary essential risk data.

(5) Reviewing and certifying storage licenses (EA Forms 296-R) annually to ensure compliance with Quantity-Distance (Q-D) requirements set forth in Department of Army Pamphlet 385-64 for the separation of explosive and non-explosive facilities.

(6) Conducting an annual survey of each licensed facility to ensure munitions are stored in compliance with the appropriate license and to recertify the license. The survey will include, as a minimum, determination that the Net Explosives Weight (NEW) does not exceed that authorized by the license, compatibility of stored munitions, and condition of storage facility. The inspection checklist attached at enclosure-1 will be used.

(7) Ensuring that license reflects maximum permissible NEW rather than number/type munitions.

d. Unit Commanders:

(1) Protect personnel and the public from explosives accidents by adhering to referenced safety principles for storage of ammunition and explosives.

(2) Ensure all personnel engaged in operations in which munitions or other hazardous materials are involved are properly equipped and thoroughly trained in explosives safety, the operation to be performed, the Hazard Classification/Division (HCD) of explosives to be handled, and are capable of recognizing fire symbols.

(3) Ensure munitions in the AHA are handled under the direct supervision of qualified personnel who are familiar with the hazards and risks involved.

(4) Ensure operations involving explosives are analyzed with a view toward reducing personnel and quantity of explosives that may be subject to an incident.

(5) Ensure that personnel are not transported in vehicle cargo bays with any class of ammunition or explosives.

(6) Responsible for the security, and interior, maintenance & upkeep of their respective storage facilities.

(7) Responsible for ensuring their units are complying with all provisions of this SOP, safety regulations and appropriate references.

(8) Responsible for notifying the Area II Support Activity Safety Office and DOL of any ammunition operations, changes of quantities, and accidents occurring during handling of ammunition.

(9) Responsible for ensuring that a 100% physical inventory of their unit's basic load ammunition and training ammunition (if applicable) is conducted monthly. One copy of the inventory report will be forwarded to: HQs, Area II Support Activity, ATTN: IMKO-AB-SO, Unit #15333, APO AP 96205-5333, NLT the 27th day of each month, using an Excel Spread Sheet format provided by the Area II Support Activity, DOL. The monthly report is required regardless of whether the quantities of ammunition in storage have changed or not.

(10) Responsible for identifying and making arrangements for the turn-in of suspended lots of ammunitions and to replenish the Unit Basic Load (UBL).

(11) Responsible for ensuring those vehicles used for transportation of ammunition are inspected to the standards of DD Form 626, Motor Vehicle Inspection (Transporting Hazardous Materials).

(12) Responsible for providing their own material handling equipment to support the upload of ammunition.

(13) Responsible to provide SOP for the storage, issue, and upload of munitions from their respective UBL storage facilities.

5. STORAGE AND HANDLING OF BASIC LOAD AMMUNITION:

a. Ammunition for miscellaneous activities and training ammunition may be stored in the basic load storage facilities for a period not to exceed 30 days. Prior to drawing the ammunition, the unit will confirm with the license holder that the facility NEW will not be exceeded by the storage of the items. These items must also be reported on monthly UBL report. Storage of these stocks must be separated and clearly identified as to their intended purpose. A DA Form 3020-R Magazine Data Card will be maintained on each lot in storage.

b. When more than one unit is using the same storage area stocks will be segregated and identified by unit. Magazine Data Cards (DA Form 3020-R) will be affixed to the containers. Containers will be properly marked/labeled. In addition to standard information on DA Form 3020-R, the unit designation will be printed on the DA Form 3020-R. A memorandum of agreement will be established between the tenants and the AHA or cell manager.

c. Ammunition will be stacked and segregated by lot number. Ammunition will be stacked so that free circulation of air beneath and throughout the stack is possible. When more than one lot is stored in a stack, all items or containers of a lot will be stored together and the line of segregation between lots will be clearly indicated with a DA Form 3020-R affixed to the stack. Lots of ammunition will never be mixed randomly.

d. Partly filled (light) boxes will be securely fastened and marked. The light box will be kept on the top of the stack. The light box will be completely painted orange and marked in black paint with the DODIC, nomenclature, ammunition lot number, and quantity of ammunition in the box. There will be no more than one light box for each lot.

e. Storage in direct sunlight must be avoided.

f. Boxes must be stored in straight stacks and the nomenclature and lot numbers visible.

g. Ammunition and explosives will be kept dry. Stacks will be covered when evidence of water leakage is present.

h. Basic load ammunition will be retained in the same packaging as it was originally issued.

(1) Original pack (sealed container) will not be broken except by a Quality Assurance Specialist (Ammunition Surveillance) (QASAS) during an annual basic load inspection, technical assistance visit, or when required for immediate use. In the event a seal is accidentally broken the unit may contact the supporting QASAS to get the container resealed.

(2) Units with a mission requiring removal of ammunition from its packaging for potential immediate use must request approval for the unpacking of the basic load. The request for approval will be submitted with justification through command channels to the EUSA ACof S, G-3, ATTN: EACJ-TDD and ACof S, J4, ATTN: DJ-AM-S.

k. Units will display a unit designation placard on the exterior door of their assigned storage area within the storage facility with Unit, POC, and phone number.

6. General Instruction:

a. Each individual is responsible for compliance with safety rules, regulations and procedures to be followed in the handling of ammunition and explosives. Safety must become a firmly established habit when working with, or staying in the vicinity of items having explosives, flammable or toxic hazards. Instructions governing the storage and care of ammunition and explosives will be posted in each AHA where ammunition and explosives are stored. These instructions will include the following, as a minimum:

(1) Always handle ammunition and explosives carefully.

(2) Remove dirt, grit, and foreign materials from containers and ammunition or explosives before placing in storage.

(3) Do not store ammunition and explosives in damaged containers.

(4) Keep all containers in AHA closed.

(5) Store each lot separately. Make the piles stable. Provide for a free circulation of air to all piles. Where dunnage is required to keep containers of ammunition or explosives off the floor, wood or other nonmetallic dunnage will be used and should be three inches in height. Ammunition/explosives will be stacked to allow an 18 inch clearance between the top of stack and the ceiling.

(6) Do not open, repair, pack, or repack containers in or within 100 feet of AHA, except as specifically authorized by a Quality Assurance Specialist Ammunition Surveillance (QASAS).

(7) Do not keep empty containers, tools, or other materials in the AHA or other storage facility containing ammunition or explosives except as specifically authorized.

(8) Cleanliness must be maintained.

(9) Use only electric lights approved for use in the AHA.

(10) Do not bring matches or spark producing devices into or within 50 feet of the AHA. Smoking is authorized only in designated areas and prohibited within 50 feet of an AHA.

(11) Do not allow unauthorized persons in or near the AHA. An access roster will be maintained and strictly enforced.

(12) Keep the storage facility with ventilators well screened, and no openings around doors or foundations.

(13) Keep doors locked when the AHA is unattended. Close doors when a vehicle is approaching platform unless the vehicle is equipped with spark arresters/inhibitors.

(14) Keep the 50 feet cleared space around the AHA free from combustible materials.

b. Transportation: Unit commanders will:

(1) Ensure that all personnel involved in the transportation or storage of ammunition and explosives, including those who drive the truck, certify the shipment, load the truck, pack, mark or label the ammunition in the boxes, or any other duty that could affect the transportation of ammunition and explosives have been trained on the proper use and safe handling of ammunition and explosives.

(2) Ensure that vehicles used to transport ammunition and explosives meet Department of Defense (DOD) and Department of Transportation (DOT) requirements for movement over public roads.

(3) Responsible for ensuring drivers transporting explosives are trained for transportation of hazardous materials and have the endorsement on their vehicle operator's license.

(4) Ensure that ammunitions and explosives are adequately packaged for safe shipment and are compatible with other ammunition and/or explosives loaded on the vehicle.

(5) Ensure that ammunition and explosives are properly blocked, braced or otherwise secured in the transportation vehicle to prevent movement under normal conditions.

(6) Ensure that ammunitions and explosives are located and stored in appropriate areas.

(7) Ensure that personnel involved are aware of the safety and reporting procedures to follow in the event of an accident or malfunction involving ammunition or explosives.

c. Prevention of Fires and Explosions:

(1) A written fire plan will be prepared to include a list of communications or alarm signals to be made. Responsibilities of personnel in the plan will include the following:

(a) Reporting the fire to the Fire Station (call 117 or 911).

(b) Directing orderly evacuation and accountability of all personnel.

(c) Notifying personnel in nearby locations of impending dangers.

(d) Procedures for controlling/extinguishing the fire.

(2) The fire will be controlled/extinguished immediately with all available means and without awaiting specific instructions. No attempt, however, will be made if there is a danger of explosion.

(3) Appropriate fire symbols will be displayed on buildings and storage sites containing ammunition and explosives in a manner to make them easily visible to the approaching fire fighting forces from the maximum, practical distance IAW instructions prescribed in DA Pam 385-64. When the building is not being used to store ammunition and explosives the warning signs must be removed or covered.

(4) Two serviceable fire extinguishers with a rating of at least 10 BC are required when ammunition/explosives are stored, handled or transported. Their location will provide for immediate access and use.

(5) All flashlight or storage battery lamps used in buildings containing ammunition, explosives, or flammable vapors will be types approved as permissible by the United States Bureau of Mines or by a similarly recognized testing laboratory.

(6) Electrical lines serving an AHA will be installed underground from a point not less than 50 feet.

(7) Vegetation in the form of grass, undergrowth, weeds, and the like, which is or may become a fire hazard, will be controlled by weed killer, mowing, plowing, cutting, or by livestock grazing under supervised conditions.

(8) In no case, reserve supplies of dunnage and other combustible or flammable materials will be stored within 50 feet of the magazine, or other ammunition and explosives storage areas.

(9) Gasoline or other highly flammable liquids will not be used for cleaning purposes. Dry-cleaning solvent (Stoddard Solvent) should be used where solvents are required for cleaning.

(10) Ammunition boxes, containers, dunnage, and lumber must be stacked in an orderly manner when in the vicinity of explosives renovation, handling or storage operations.

(11) Water barrels, pails, sand boxes and shovels provide a recognized means of combating incipient fires in an AHA where the combustible material consists principally of grass, wood, dunnage, ammunition boxes, etc. Two chemical type fire extinguishers rated at least 10 BC may also be used.

d. Lightning Protection System Inspection and Testing:

(1) A visual inspection of the lightning protection system will be conducted every six months to check for evidence of corrosion or broken wires or connections. All necessary repairs will be made immediately.

(2) A ground resistance test of the lightning protection system will be conducted by certified electrical engineers/technicians or by personnel who have been trained by qualified electrical engineers or technicians. The test will be conducted at least every 24 months and a resistance of less than 25 ohms ground is required. All records of test results will be kept on file.

e. Waiver / Exemption Procedures:

(1) When Q-D requirements cannot be met and no other measures, such as, reducing the quantity of explosives or relocating the storage facility, etc., can be taken, a request for waiver or exemption will be initiated IAW AR 385-64. The waiver must remain current until the waived condition is abated. The request for waivers or exceptions will be processed through the Installation Safety Office.

(2) Waivers will be requested for conditions with a planned corrective action or short term events and may not exceed five years. Exemptions will be requested for conditions with identified abatement action.

f. Continuity Book:

(1) The commander responsible for operating an AHA will develop and maintain an AHA continuity book. The book will contain items listed in the Table of Contents in Appendix F.

(2) The continuity book must be made readily available at the storage area for personnel involved to review whenever necessary.

g. Ammunition Amnesty Program:

(1) The amnesty program is intended to ensure maximum recovery of military ammunition and explosives items outside the supply system. The program provides an opportunity for individuals to return ammunition and explosive items that have been found, misplaced, or erroneously left in the possession of a unit or individual after turn-in and reconciliation has been finalized. These returns can be made without fear of prosecution. Amnesty turn-ins will not be the basis for initiation of an investigation or prosecution and are exempt from AR 190-series investigations.

(2) Commanders will establish a unit ammunition amnesty program that includes provisions for:

(a) Conducting quarterly ammunition amnesty briefings.

(b) Posting the location and telephone number of the nearest amnesty turn-in point.

(c) Establishing an atmosphere that neither intimidates nor prevents individuals from freely turning amnesty ammunition.

(d) Establishing procedures to monitor the A&E amnesty program, as an indicator of the effectiveness of ammunition accountability and to ensure the amnesty program is not abused to circumvent proper turn-in procedures.

(e) Detailing specific functional responsibilities and highlighting explosive safety requirements for handling A&E amnesty items. (Supporting EOD units should be consulted to ensure thoroughness of safety procedures.)

(f) Turn-in of amnesty ammunition IAW 6th Ordnance Battalion External SOP, Para 4-5 and Appendix G.

6. Request for changes or exceptions to this SOP should be forwarded to the HQs, Area II Support Activity, ATTN: IMKO-AB-SO, Unit #15333, APO AP 96205-5333.

7. POC is the Area II Safety Office at 738-5253.

TIMOTHY K. MCNULTY
COL, TC
Commanding

APPENDIX
A. Inspection Checklist
B. DD Form 626
C. Explosive Safety Reference Listing

DISTRIBUTION:

HHC, EUSA
Cdr, TANGO Security Force
Cdr, A Co., 1/501st Avn Reg
Cdr, 19th MP Det, CID
Cdr, Det 32, 303 IS/DOS
Dir, LSAK
Dir, RRC
Cdr, Claims Service
Cdr, 38th Chem Det
Cdr, HHC, 18th MEDCOM
Cdr, HHC, 8th MP Bde
Cdr, HHC, 17th Avn Bn
Cdr, 498th Maint. Co
Cdr, 1st Sig Bde
Cdr, 129th Med Det (VM)
Cdr, 618th Med Det
Cdr, US Naval Force Korea
Cdr, HQ, 52nd Med Det
Cdr, EUSA Band
Cdr, 532nd MI Bn
Cdr, 257th Sig Co.
Cdr, 142nd MP Co
Cdr, CSCT #3
Cdr, 19th AG
Cdr, Air Def Artillery Liaison
Dir, TSAK
Cdr, SSO
Cdr, JUSMAG-K
Cdr, 18th MEDCOM
Cdr, HHC, 8th PERSCOM
Cdr, HHC, 175th TFC
Cdr, 305th S&S Co
Cdr, 106th Med Det (VS)
Cdr, 163rd Med Det (DS)
Cdr, UNC Honor Guard
Cdr, HQ, KSC
Cdr, 25th Trans MCA
EUSA, J-1
Cdr, 524th MI Bn
Cdr, 362nd Sig Co.
Cdr, CC Seoul
Inst Coord, CP Market

**APPENDIX A**

**Explosive Site License Inspection Checklist**

Location: _____ SITE _____ AHA/A R UNIT: _____ Date: _____

CDR: _____ Phone: _____

E-MAIL ADDRESS:_____

Rep: _____ Phone: _____

E-MAIL ADDRESS:_____

STORAGE TYPE; UBL: _____ OPLOAD: _____ TRAINING: _____ AMA: _____

| A. EXTERIOR: | YES | NO | N/A |
|---|---|---|---|
| 1. IS CORRECT EXPLOSIVE SYMBOL POSTED IAW DA PAM 385-64, PARA 3-14 AND 3-15? | | | |
| 2. IF REQUIRED, IS RESPIRATOR REQUIRED SYMBOL POSTED IAW DA PAM 385 -64, PARA 3-17? | | | |
| 3. IF REQUIRED, IS APPLY NO WATER SYMBOL POSTED IAW DA PAM 385 -64, PARA 3-17? | | | |
| 4. IS BILINGUAL NO SMOKING WITHIN 50 FEET SIGN POSTED IAW EUSA Reg 700-3 Para 2-10a(17)? | | | |
| 5. DOES THE BUILDING HAVE AN APPROVED LIGHTENING PROTECTION SYSTEM? | | | |
| 6. IF REQUIRED IS BONDING PRESENT AND SERVICEABLE? | | | |
| 7. IS THERE EXCESS VEGITATION OR FLAMMABLE MATERIALS | | | |

| **B. STORAGE AUTHORIZATION AND AMMUNITION STORAGE (AMMUNITION WILL BE STORED IN BUILDINGS DESIGNED AND LICENSED FOR AMMUNITION) PARA 2-10a(2) EUSA REG 700-3** | | | |
|---|---|---|---|
| (1). IS THE UNIT BEING INSPECTED THE CUSTODIAN FOR THE STORAGE BUILDING? | | | |
| (a). IS THERE A CURRENT SECURITY CONSTRUCTION STATEMENT ON FILE FOR THE FACILITY? | | | |
| (b) IS THERE A CURRENT PHYSICAL SECURITY INSPECTION ON FILE? | | | |
| (c) IS A WAIVER REQUIRED FOR THE FACILITY? | | | |
| (d). IF REQUIRED IS THE LPS RESISTANCE TEST CURRENT? | | | |
| (2). ARE OTHER UNITS STORING AMMUNITION IN THE FACILITY? | | | |
| (a) ARE THERE MEMORANDUMS OF AGREEMENT/ UNDERSTANDING ON FILE WITH TENANT UNIT COMMANDERS? | | | |
| (b) CURRENT COMMANDER'S SIGNATURE FOR BOTH TENANT AND | | | |

**APPENDIX A**
**Explosive Site License Inspection Checklist**

| CUSTODIAN UNIT'S | | | |
|---|---|---|---|

| **C. ACCOUNTABILITY** | YES | NO | N/A |
|---|---|---|---|
| 1. IS THE UNIT STORING BASIC LOAD AND MAINTAINING ACCOUNTABILTY IAW PARA 2-6b, 3-9a, 3-9g, EUSA REG 700-3? | | | |
| 2. IS THE UNIT STORING OPERATIONAL LOAD AND MAINTAINING ACCOUNTABILTY IAW PARA 3-9a, EUSA REG 700-3? | | | |
| 3. DOES THE UNIT HAVE AN AMMUNITION AMNESTY PROGRAM? | | | |

| **D. DOES THE UNIT RECEIVE SUSPENSION/RESTRICTION MESSAGE TRAFFIC OR IF THE UNIT PBO/S4 SCREENS SUPPLEMENTS AND FORWARDS PERTINENT MESSAGES TO THE UNIT, IS A STATEMENT ON HAND? PARA 2-5C(17) EUSA REG 700-3, NARNET POC: SonMP@usfk.korea.army.mil** | | | |
|---|---|---|---|

| **E. STORAGE CONDITIONS PARA 2-10, EUSA REG 700-3** | | | |
|---|---|---|---|
| (1). IS THE FIRE PLAN POSTED IN PLAIN VIEW? | | | |
| (2). IS THE PROPER FIRE FIGHTING EQUIPMENT WITH CURRENT INSPECTIONS AVAILABLE? | | | |
| (3). IS THE AMMUNITION PROPERLY STACKED? | | | |
| (4). IS THERE SUFFICIENT DUNNAGE TO ENSURE ADEQUATE AIR CIRCULATION? | | | |
| (5). ARE THE MAGAZINE DATA CARDS (DA FORM 3020-R) BEING PROPERLY MAINTAINED AND PLACED FOR EACH LOT? (PARA 9-11, DA PAM 710-2-1) | | | |
| (6). IS TRAINING AMMUNITION CLEARLY SEGREGATED FROM BASIC LOAD AMMUNITION? | | | |
| (7). IS AMMUNITION PROPERLY PACKED AND MARKED, ARE LEAD WIRE SEALS AND BANDING INTACT? | | | |
| (8). ARE ADEQUATE KEY AND LOCK CONTROL PROCEDURES FOR AMMUNITION STORAGE STRCTURES BEING MAINTAINED? | | | |
| (9). IS THE AMMNITION IN THE UNIT'S ARMSROOM STORED IN A SEPARATE LOCKED CONTAINER FIRMLY SECURED TO THE STRUCTURE? | | | |
| (10). IS THERE EVIDENCE OF GOOD HOUSE KEEPING? | | | |

| COMMENTS: |
|---|
| |

POC: Area II Safety Office, Phone 738-5253
FAX: 738-4661

# MOTOR VEHICLE INSPECTION (TRANSPORTING HAZARDOUS MATERIALS)

*(Read Instructions before completing this form.)*

This form applies to all vehicles which must be marked or placarded in accordance with Title 49 CFR.

1. GOVERNMENT BILL OF LADING/TRANSPORTATION CONTROL NUMBER

| SECTION 1 - DOCUMENTATION | ORIGIN a. | DESTINATION b. |
|---|---|---|
| 2. CARRIER/GOVERNMENT ORGANIZATION | | |
| 3. DATE/TIME OF INSPECTION | | |
| 4. LOCATION OF INSPECTION | | |
| 5. OPERATOR(S) NAME(S) | | |
| 6. OPERATOR(S) LICENSE NUMBER(S) | | |
| 7. MEDICAL EXAMINER'S CERTIFICATE* | | |

8. *(X if satisfactory at origin)*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| a. MILITARY HAZMAT ENDORSEMENT | | d. ERG OR EQUIVALENT COMMERCIAL: | | YES | | NO | |
| b. VALID LEASE* | | e. DRIVER'S VEHICLE INSPECTION REPORT* | | | | | |
| c. ROUTE PLAN | | f. COPY OF 49 CFR PART 397 | | | | | |

9. CVSA DECAL DISPLAYED ON COMMERCIAL EQUIPMENT*

| | YES | NO |
|---|---|---|
| a. TRUCK/TRACTOR | | |

## SECTION II - MECHANICAL INSPECTION

*All items shall be checked on empty equipment prior to loading. Items with an asterisk shall be checked on all incoming loaded equipment.*

10. TYPE OF VEHICLE(S)

11. VEHICLE NUMBER(S)

| 12. PART INSPECTED *(X as applicable)* | ORIGIN (1) SAT | ORIGIN (1) UNSAT | DESTINATION (2) SAT | DESTINATION (2) UNSAT | | ORIGIN (1) SAT | ORIGIN (1) UNSAT | DESTINATION (2) SAT | DESTINATION (2) UNSAT | COMMENTS (3) |
|---|---|---|---|---|---|---|---|---|---|---|
| a. SPARE ELECTRICAL FUSES | | | | | k. EXHAUST SYSTEM | | | | | |
| b. HORN OPERATIVE | | | | | l. BRAKE SYSTEM* | | | | | |
| c. STEERING SYSTEM | | | | | m. SUSPENSION | | | | | |
| d. WINDSHIELD/WIPERS | | | | | n. COUPLING DEVICES | | | | | |
| e. MIRRORS | | | | | o. CARGO SPACE | | | | | |
| f. WARNING EQUIPMENT | | | | | p. LANDING GEAR* | | | | | |
| g. FIRE EXTINGUISHER* | | | | | q. TIRES, WHEELS, RIMS | | | | | |
| h. ELECTRICAL WIRING | | | | | r. TAILGATE/DOORS* | | | | | |
| i. LIGHTS AND REFLECTORS | | | | | s. TARPAULIN* | | | | | |
| j. FUEL SYSTEM* | | | | | t. OTHER *(Specify)* | | | | | |

13. INSPECTION RESULTS *(X one)* ACCEPTED ☐ REJECTED ☐

*(If rejected give reason under "Remarks". Equipment will be approved if deficiencies are corrected prior to loading.)*

14. SATELLITE MOTOR SURVEILLANCE SYSTEM: *(X one)* ACCEPTED ☐ REJECTED ☐

15. REMARKS

16. INSPECTOR SIGNATURE *(Origin)*

17. INSPECTOR SIGNATURE *(Destination)*

## SECTION III - POST LOADING INSPECTION

This section applies to Commercial and Government/Military vehicles. All items will be checked prior to release of loaded equipment and shall be checked on all incoming loaded equipment.

| | ORIGIN (1) SAT | ORIGIN (1) UNSAT | DESTINATION (2) SAT | DESTINATION (2) UNSAT | COMMENTS (3) |
|---|---|---|---|---|---|
| 18. LOADED IAW APPLICABLE SEGREGATION/COMPATIBILITY TABLE OF 49 CFR | | | | | |
| 19. LOAD PROPERLY SECURED TO PREVENT MOVEMENT | | | | | |
| 20. SEALS APPLIED TO CLOSED VEHICLE; TARPAULIN APPLIED ON OPEN EQUIPMENT | | | | | |
| 21. PROPER PLACARDS APPLIED | | | | | |
| 22. SHIPPING PAPERS/DD FORM 836 FOR GOVERNMENT VEHICLE SHIPMENTS | | | | | |
| 23. COPY OF DD FORM 626 FOR DRIVER | | | | | |
| 24. SHIPPED UNDER DOT EXEMPTION 868 | | | | | |

25. INSPECTOR SIGNATURE *(Origin)*

26. DRIVER(S) SIGNATURE *(Origin)*

27. INSPECTOR SIGNATURE *(Destination)*

28. DRIVER(S) SIGNATURE *(Destination)*

**APPENDIX C**
PUBLICATIONS LIST (EUSA REG 700-3, APP A, Section I)

Mandatory publications required to be on hand for units that have been issued ammunition are listed below. Asterisks indicate which publications are required for units of varying sizes and strengths.

DOD 5100.76-M** http://www.dtic.mil/whs/directives/corres/pdf/510076m_0800/p510076m.pdf

AR 75-1** http://www.usapa.army.mil/pdffiles/r75_1.pdf

AR 190-11** http://www.usapa.army.mil/pdffiles/r190_11.pdf

AR 350-41* http://www.usapa.army.mil/pdffiles/r350_41.pdf

AR 385-64** http://www.usapa.army.mil/pdffiles/r385_64.pdf

AR 710-2 ** http://www.usapa.army.mil/pdffiles/r710_2.pdf
with EUSA Suppl 1

AR 735-5 ** http://www.usapa.army.mil/pdffiles/r735_5.pdf
with EUSA Suppl 1

DA PAM 710-2-1** http://www.usapa.army.mil/pdffiles/p710_2_1.pdf

EUSA REG 350-41* ftp://144.59.60.5/Publications/Regulations/EUSA/EUSA%20Reg%20350-41%20EUSA%20Training/ This is a directory for several parts of the Reg

EUSA REG 700-3*** ftp://144.59.60.5/Publications/Regulations/EUSA/EUSA%20Reg%20700-3%20Conventional%20Ammunition.pdf

EUSA REG 742-2*** ftp://144.59.60.5/Publications/Regulations/EUSA/EUSA%20Reg%20742-2%20Insp%20of%20Ammunition%20for%20UBL%20&%20Misc%20Act.doc Incomplete - refers to hardcopy for some examples

FM 5-250*

FM 9-38*

TM 9-1300-251-20**

DA PAM 385-64** http://www.usapa.army.mil/pdffiles/p385_64.pdf

SB 725-1300-1*

CTA 50-909*

34th Support Group, Policy Letter 10-3, Ammunition and Explosives Safety Program, dtd 4 October 2001 ***

* Battalion level and above
** Company level and above
*** ALL units, activities, and organizations that handle or maintain ammunition for ABL.

**Ammunition and Explosive Safety Assistance is available from the following sources outside your unit:**

**Area II Safety Office 738-5253**
**52nd Ordnance Company 753-7145, 7142**
**EUSA Command Safety 723-6298**

POC: Area II Safety Office, Phone 738-5253
FAX: 738-4661

**DEPARTMENT OF THE ARMY**
HEADQUARTERS, AREA II SUPPORT ACTIVITY
**UNIT #15333**
**APO AP 96205-5333**

REPLY TO
ATTENTION OF:

IMKO-AB-ZA (385)

6 APR 2005

COMMAND POLICY # 10-4

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Formation Running on Yongsan Installation

1. REFERENCES:

a. Army Regulation 385-55, Prevention of Motor Vehicle Accidents, 12 March 1987.

b. USFK Regulation 190-1, Motor Vehicle Traffic Supervision, 21 November 1997.

2. PURPOSE: This policy provides guidance and requirements for protection of troops while running during unit PT formations on Yongsan installation.

3. APPLICABILITY: This policy applies to all military personnel using Military Installations within Area II and to all tenants regardless of component or affiliation.

4. REQUIREMENT: This Command's policy is in accordance with Army requirements to emphasize the protection of troops in formation as follows:

a. Reduced speed limits will be enforced.

b. Road guards with reflective equipment will be used.

c. Lights will be used by troop formations during periods of reduced visibility.

5. GENERAL:

a. Maximize use of off-road areas and avoid using main thoroughfares whenever possible.

b. PT formations will run with the flow of traffic. Tight formations will be maintained and traffic will be assisted around the formation by trained road guards.

c. No cadence calling in family housing areas.

d. Formations, to include cadence callers, will not occupy more than ½ of the road. Formations will not have more than 3 columns abreast.

e. All personnel will wear road guard vests. Road guards will use flashlights during periods of limited visibility.

f. Stragglers will remain clear of the roadway. Units will designate NCOs to police personnel that fall out and provide assistance if required for their return back to the unit.

g. Units will not use 8th Army Drive between X Corps (S. Post) and 1st Corps Blvd (Main Post). Formations will not cross Itaewon Road through gates 5/10 or 7/8. Units will utilize the pedestrian overpass connecting main and south post when traversing is necessary. Units should limit unit runs to the general area where formations are initiated (i.e. unit assemblies in Camp Coiner should run in Camp Coiner, main post units to main post and Camp Coiner). All units should avoid or limit exposure on main thoroughfares of installation.

h. Unit formation runs are prohibited from 0730 – 0830 hrs, weekdays, on South Post.

i. The wearing of headphones and ear phones while running on military installations is strictly prohibited.

j. PT formations off-post will only be made after a thorough analysis, completion of a risk assessment, evaluation and briefing of the formation and with the permission of the responsible unit commander. Commander must fully understand that they have no legal control over civilian motor vehicle traffic off post.

k. Vehicle operators will yield the right-of-way to marching units. Drivers may drive around marching units with extreme caution at a speed not to exceed 10 MPH (15 KPH). Drivers will be prepared to execute a prompt stop if any person should move into the path of any vehicle. Drivers will begin the 10 MPH (15 KPH) limit at a distance 50 meters (165 feet) from unit formations and maintain the speed limit for a distance of 50 meters (165 feet) past the formation. This speed limit applies regardless of the direction in which the formation is encountered.

6. Failure to comply with this policy subjects military personnel to a variety of administrative actions.

7. This policy enhances readiness and requires affirmative action by each command and organization. This policy will be effective immediately and will continue in effect until rescinded or modified by the Installation Commander.

TIMOTHY K. MCNULTY
COL, TC
Commanding

DISTRIBUTION:
A

CF:
CDR, 501st MI Bde, Unit #15282, APO AP 96205-0055
CDR, 17th Avn Bde, Unit #15270, APO AP 96205-0043
CDR, 1st Sig Bde, Unit #15271, APO AP 96205-0044
CDR, 8th MP Bde, Unit #15306, APO AP 96205-0079
CDR, 175th TFC, Unit #15300, APO AP 96205-0073
CDR, 227th Maint Bn, Unit #15275, APO AP 96205-0048
CDR, 8th PERSCOM, Unit #15316, APO AP 96205-0089
CDR, 18th MEDCOM, Unit #15281, APO AP 96205-0054
CDR, 6th Region USACIDC, Unit #15304, APO AP 96205-0077
CDR, USA Engr District, FE, Unit #15546, APO AP 96205-0610
CDR, AFKN, Unit #15324, APO AP 96205-0097
HQ, CMDT, U.S. Army Troop Command-Korea, APO AP 96205-0260

DEPARTMENT OF THE ARMY
HEADQUARTERS, AREA II SUPPORT ACTIVITY
UNIT #15333
APO AP 96205-5333

REPLY TO
ATTENTION OF:

IMKO-AB-SO

6 APR 2005

# AREA II COMMAND POLICY #10-5

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Area II Policy on Child Auto Safety Restraints

1. **References.**

a. AR 385-55, Prevention of Motor Vehicle Accidents.

b. USFK Reg, 190-1, Motor Vehicle Traffic Supervision.

c. Korean Road and Traffic Law, Article 48-2, Clause #1.

2. **Purpose.** To prescribe policy for implementation and use of child auto safety restraints within Area II.

3. **Applicability.** This policy applies to all US service members from all components assigned, attached, or on temporary duty in Area II to include service members in a pass or leave status, DoD civilians, DoD contractors and family members. Additionally, this applies to all Korean Nationals operating or riding in any vehicle on Area II installations.

4. **Policy.**

a. On Post

(1) Effective immediately, all children riding in SOFA plated vehicles will be seated and restrained with the vehicle safety device. Children, age 3 and under, will be securely seated in a child auto safety seat/restraint and restrained securely. It is highly recommended that child auto safety seat/restraints be placed in the rear seat of the vehicle and secured to the seat with restraining devices.

(2) All Korean Nationals operating or riding in a vehicle, SOFA plated or Korean plated, on an Area II installation, will abide by these child auto safety seat/restraint rules when children are riding inside the vehicle.

b. Off Post

(1) In accordance with SOFA, all US service members, DoD civilians, DoD contractors, and family members operating a vehicle on a Korean highway, road, or street, must comply with Korean Road and Traffic Laws. The current Korean traffic law, on child auto safety seat/restraints, requires that children under the age of six (6) must be seated in a child auto safety seat/restraint. Failure to abide by this law can result in a monetary fine of 30,000 won.

(2) Korean Nationals, employed by US Forces and working on an Area II installation, are encouraged to abide by their Korean Road Traffic Law and ensure that their children are provided with and use child auto safety seat/restraints.

5. **Command Responsibilities and Enforcement**

a. Although personal safety is always an individual responsibility, commanders will ensure that all personnel are made aware of this child safety policy. The safety and welfare of children of our service members, DoD civilians, DoD contractors, and their family members is an inherent responsibility of all leaders, and managers at all levels. We must make sure that we educate every member of our community and instill a level of child safety that permeates down to everyone.

b. The installation Military Police will enforce this police and conduct spot-checks of POVs on each installation as they patrol during their daily mission activities. Personnel found in violation of this policy will be cited by the Military Police and may receive administrative and/or disciplinary action as appropriate.

6. This policy is effective immediately and will remain in effect until rescinded or modified by the Area II Commander.

TIMOTHY K. MCNULTY
COL, TC
Commanding

**DEPARTMENT OF THE ARMY**
AREA II SUPPORT ACTIVITY
UNIT #15333
APO AP 96205-5333

REPLY TO
ATTENTION OF:

IMKO-AB-SO

1 September 2005

COMMAND POLICY #10-7

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Area II Support Activity Lockout/Tagout Policy

1. REFERENCES:

a. 29 CFR 1910.147, The control of hazardous energy (Lockout/Tagout).

b. Safety and Health Requirements Manual, EM 385-1-1, Section 12, Control of Hazardous Energy (lockout/tagout).

2. PURPOSE. The purpose of this policy is to establish the procedures for the lock out or tagout of energy isolating devices. It shall be used to ensure the machine or equipment is isolated from all potentially hazardous energy, and locked out or tagged out before qualified personnel of Area II perform any servicing or maintenance activities where the unexpected energization, start-up, or release of stored energy could cause injury.

3. RESPONSIBILITIES. Personnel of Area II shall be instructed in the safety significance of the lockout/tagout procedure by the section supervisor. Each new or other personnel whose work operations are or may be in the area shall be instructed in the purpose and use of the lockout and tagout procedures during initial job safety briefing.

4. APPLICABILITY. This policy is applicable to all Area II employees whose job requires them to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed. The principle of this policy should be followed while performing duties at TDY sites also. Follow TDY installation's Lockout/Tagout program if available.

5. Scope and Policy. Lockout/Tagout is required (decision process summarized in Figure 1) anytime servicing and/or maintenance takes place if an employee is:

a. Required to remove or bypass a guard or other safety device.

b. Required to place any part of their body into an area on a machine or piece of equipment where work is actually performed upon the material being processed (point of operation) or where a danger zone exists during a machine operating cycle.

c. Required to work on or near non-power transmission or distribution exposed electrical hazards unless de-energizing introduces additional or increased hazards or is not feasible due to equipment design or operational limitations.

NOTE: This policy/procedure applies to any source of stored energy (electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy source) unless the stored energy source can be removed by simply unplugging the equipment and the equipment is unplugged during maintenance or servicing (with the plug under the control of the person performing the maintenance or service).

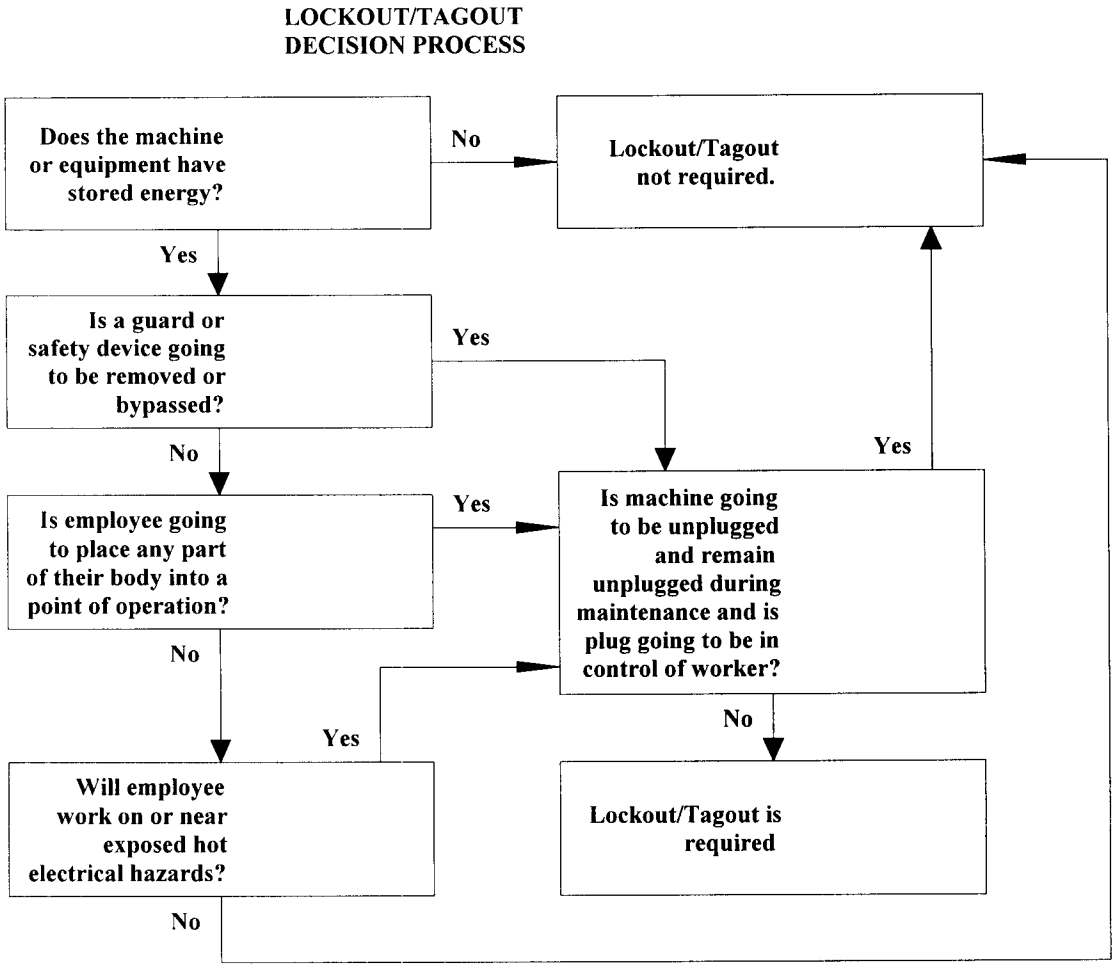

LOCKOUT/TAGOUT
DECISION PROCESS
Does the machine or equipment have stored energy?
No
Lockout/Tagout not required.
Yes
Is a guard or safety device going to be removed or bypassed?
Yes
No
Yes
Is employee going to place any part of their body into a point of operation?
Yes
Is machine going to be unplugged and remain unplugged during maintenance and is plug going to be in control of worker?
No
Yes
Will employee work on or near exposed hot electrical hazards?
Lockout/Tagout is required
No

**Figure 1**

6. REQUIRED EQUIPMENT.

a. Lockout Locks. OSHA requires standardization of the locks used to lockout hazardous energy sources. The section supervisor is responsible to ensure that safety signs, tags, and locks are available in adequate supply. Locks used for lockout of hazardous energy within the Area II project MUST meet the following minimum requirements:

(1) Locks must be labeled with a special label. Label must have the Organization and Phone Number of the crew/individual installing the lock clearly written in the spaces provided in the label.

(2) Locks must be key type (combination will NOT be used).

(3) The use of locks with master keys is prohibited. The lock's single key should be in the control of the person applying the lock, or responsible for the lock in the case of lock transfer at the end of a shift.

b. Tagout Tags. OSHA requires standardization of tags used to tagout hazardous energy sources. Tags MUST meet the following minimum requirements:

(1) The tag must be affixed at the point where the hazardous energy source is isolated (switch, valve, wedge, etc) not simply affixed in the general area.
(2) The tag must be affixed with a "self locking" and "non re-usable" tie wrap rather than by the string.
(3) The tag must be completely filled out. Especially critical is the employee's name and the equipment involved.

(4) A tag is required in all cases, even when a lock is used.

c. Other Lockout Equipment. OSHA requires that all devices used for lockout/tagout be "singularly identified" and "not used for other purposes". Equipment, as listed below, that is to be used for lockout/tagout, must be designated/isolated for lockout/tagout and must not be used for other purposes:

(1) DANGER Tag
(2) Lockout Locks
(3) Chains used to lock valves
(4) Wall switch lockouts
(5) Valve covers

(6) Plug locks
(7) Block out breakers
(8) Ball valve lockouts
(9) Any other device used to lockout hazardous energy sources

7. STEPS TO LOCKOUT EQUIPMENT.

a. Identify the specific piece of equipment that is going to be serviced.

b. Identify the "single" power source that energizes the equipment such as a switch, circuit breaker, valve, spring, etc.

Note: Hydraulic and Pneumatic Systems usually involve a number of pipes and valves, and must be treated differently than electrical systems. The hazards associated with these systems are usually pressure releases of substances like steam or hydraulic fluid.

c. Identify and obtain all equipment necessary to lockout and tagout this single power source (lock, hasp, tag, self-locking attachment for tag, chain, cover, etc.).

Note: There are special lockout devices that have been made specifically for Hydraulic and Pneumatic Systems. They include padlocks and chains, as well as valve clamps. Normally, standard tags are sufficient in these situations.

d. Notify all employees that are affected by the piece of equipment being locked out.

e. If the equipment is running, use the established procedure to shut the equipment down. If shutdown requires customer permission obtain permission before proceeding.

f. Bring the equipment to a state of zero stored energy. As an example, locking out a hydraulic lift that is still suspended might allow the lift to come down and possibly injure the employee.

g. Lockout the source of stored energy with a hazardous energy lockout lock and place a tagout tag on the hasp of the lock. The tag must be completely filled in with appropriate information. It is critical that the name of the employee who placed the lock be clearly indicated on this tag.

Note: Steps to take when working with a Hydraulic or Pneumatic System include bleeding any pressurized lines, testing bled lines using down stream valves, and installing blinds in piping where needed. Additional precautions should be taken to prevent major moving parts from slipping by installing blocks, brackets or pins, isolating equipment from vibrations and shutting down adjacent machines, if necessary.

h. When locking out electrical equipment, confirm that all electrical energy has been removed by the use of a voltmeter.

i. When locking out other forms of energy, confirm that the source of stored energy has been removed by attempting to restart the equipment (ensure personnel are well clear before accomplishing this step).

j. After trying to start the equipment, make sure that all valves, levers, and push buttons have been returned to the OFF/Neutral position.

k. The equipment is now locked out or tagged out and ready to be serviced.

8. RESTORING MACHINES OR EQUIPMENT TO NORMAL PRODUCTION OPERATION.

After the servicing or maintenance is complete and equipment is ready for normal production operations, the following steps are the minimum necessary to reenergize locked out equipment:

a. Place all safe guards back on the equipment.

b. Remove all tools, parts, etc., around the area that could cause a potential hazard when the equipment is started.

c. Check the area around the machines or equipment to ensure no one is exposed.

d. Remove lockout/tagout devices according to the standard starts up procedure. Notify personnel that the locks or tags have been removed and the equipment is in service.

9. TAGOUT

Tagging out equipment requires the placement of a tag on the equipment, warning other individuals that it is being serviced and should not be re-energized. Tagging by itself is not allowed if the equipment is capable of being locked out with a lock. Tagging alone should only be used as a last resort. Always attempt to isolate the hazardous energy source by additional methods such as removing fuses, blocking access to switches, etc., if the energy control cannot be locked. It must be emphasized that the use of tags alone is only authorized under the following conditions:

a. When the equipment is incapable of being physically locked out by a padlock.

b. When it is impractical to lock it out because the system's shutdown could pose potential harm to other individuals or to a system. An example of this type situation might include the requirement to isolate a portion of a building electrical circuit where the main power to the building is capable of being locked out but the sub-circuit is not. In this case, if shutting the power off to the whole building could pose potential harm to personnel or to systems within the building it would be acceptable to isolate the energy source with a tag and at least one other backup such as the removal of a fuse or blocking access to the switch.

c. Regardless of whether a lock is installed or not, a tag is **ALWAYS** required. The tag must always be affixed as near as possible to the source of energy isolation (switch, valve, etc.) and must be affixed with a "non re-usable" and "self locking" Tie Wrap.

10. LOCKOUTING EQUIPMENT WITH MORE THAN ONE PERSON

There may be times when two or more employees are required to lockout/tagout the same piece of equipment, or an employee is working on the same piece of equipment with another contractor or customer representative. Examples may include employees from two different crews, two different trades (electrician and mechanic), etc. In these cases, the following additional steps must be followed:

a. If the equipment has not yet been locked out, each employee will be directly involved in the lockout and verification process and will then install their own lock (with key controlled by them) on a multiple lock hasp or other appropriate device that allows the use of multiple locks. Employees will properly affix a tagout tag to their own lock.

b. If other employees have previously locked out the equipment, and additional employees are required to work on the equipment, they must notify the employees whose locks are already installed before adding their locks and tags.

c. If another contractor has previously locked out the equipment, and additional employees are required to work on the equipment, they must go through all steps of lockout/tagout, following the applicable procedure to verify that all energy sources have been identified and locked out.

d. When each employee completes their portion of the work they must notify all employees whose locks and tags are on the equipment that they have finished their work and are removing their lock and tag.

e. The last employee to remove their lock and tag follows the steps to re-energize the locked out equipment.

11. IRREGULAR REMOVAL OF LOCKS AND TAGS

Under normal circumstances, the ONLY person authorized to remove a hazardous energy lock or tag is the person who placed it on the energy source (in the case of a transferred lock this would become the person currently holding the key and whose name is on the tag affixed to the lock).

If it is necessary to remove the device(s), every attempt MUST be made to locate the person who holds the key (should be the same person listed on the affixed tag) before the lock/tag is removed. If the person cannot be located then the lock/tag may be removed (cut off) by a member of Management only if, the job cannot wait until the person who placed the tag/lock can be located to remove it. The supervisor who approves the removal of a lock under these conditions is responsible and absolutely accountable (whether the lock is cut off or removed by a key by him/her or someone that he/she instructs to remove it) for the following minimum actions:

a. Personally insuring the area is safe and that activation of the energy source will not pose a hazard to equipment or personnel.

b. If another company or contractor placed the original lock/tag on the energy source, making every effort possible to notify an appropriate member of their supervision of the need to remove the tag/lock BEFORE it is removed.

c. Making every effort to ensure the person who placed the original lock/tag is notified that their lock/tag was removed as soon as they return to work, or as soon as they can be located, whichever is first. Never allow that person to return to the area without being notified that their lockout of the energy source has been removed.

d. Re-installing a lock and/or tag if it is necessary after the required maintenance or operation has been completed.

12. OUTSIDE SERVICING AND/OR CONTRACTOR PERSONNEL

Whenever outside servicing personnel, such as outside contractors or sub-contractors, are involved in operations relating to equipment or machinery lockout or tagout that affects Area II government employees, the affected Area II supervisor must review their energy control procedures with the responsible person of the outside employer. The reviewing supervisor will make a written record of incidents in which they have briefed contractors of written policies and inform the Area II government employees of their activities.

13. REPLACING OR REPAIRING EQUIPMENT

All new equipment having stored energy must be designed to accept a lockout device. Any new equipment received that does not meet this standard must either be modified to accept a lockout device or returned. If existing equipment does not meet this policy requirement, it should be taken out of service immediately until it is modified or disposed of. When existing equipment is renovated, or major modifications are made, the equipment must also be modified to accept a lockout device.

14. TRAINING REQUIREMENTS

Training will be provided to ensure the purpose and function of the lockout and tagout programs are understood by supervisors and operators. The training will include the following:

a. Each authorized lockout/tagout user will receive training in recognition of applicable hazardous energy sources, the type and magnitude of energy available in the workplace, and the methods and means necessary for energy isolation and control.

b. All affected personnel shall be instructed in the purpose and use of the energy control procedure.

c. All other personnel whose work or operations are or may be in an area where energy control procedures may be utilized will be instructed about the procedure, and be instructed that they are prohibited from restarting or reenergizing machines or equipment which are locked or tagged out.

d. Retraining will be provided for all authorized and affected personnel whenever there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, when there is a change in the energy control procedures, when periodic inspection of the program or procedure indicates deviation from this procedure, or when the unit commander, supervisor, or safety manager determines there are inadequacies in personnel knowledge or use of the energy control procedure.

e. Lockout is the preferred method of energy isolation and control and provides the highest level of personnel protection. Tagouts may evoke a false sense of security and their meaning needs to be understood as part of the overall energy control program. If a tagout must be used as required by a particular situation, the following must be noted and included in authorized user and affected worker training.

(1) Tags are a warning and do not provide the physical restraint as locks do.

(2) When a lock or tag is attached to an energy isolating device, only the person, supervisor, or the designated representative who initially installed the lock or tag can remove it, and it can never be bypassed, ignored, or otherwise defeated.

(3) Tags may cause a false sense of security, and their use and limitations need to be understood as part of the overall energy control program.

(4) Tags must be legible and understandable.

(5) Tags must be securely attached to the energy isolating devices so that they do not become inadvertently or accidentally detached during use.

(6) The employer certifies that employee training has been accomplished and is being kept up-to-date. The document should contain each employees' name and dates of training.

15. INSPECTION

a. The Area II Support Activity Safety Office will conduct regular inspections of lockout/tagout procedures. This will be performed to ensure that authorized lockout/tagout personnel follow the procedures outlined in this program. The inspection will include as a minimum, the program's procedures and training and self-inspection requirements.

b. Daily self-inspection will be conducted by the section to ensure compliance with all program elements. The self-inspection will include as a minimum, the identification of the machines and equipment on which the lockout and tagout program is used, a review of each person's responsibilities under the program, and that all necessary training has been conducted and documented. The self-inspection will be documented to include the date of the inspection and the section representative conducting the self-inspection.

c. The "Lockout/Tagout Procedure Checklist" (See Enclosure1) or the "Irregular Removal of Lockout/Tagout Procedure Checklist" (See Enclosure 2) will be completed by the inspector. Any discrepancies or violations of the lockout/tagout program should be noted on the form. The section supervisor will ensure that any problem areas are addressed and actions taken to prevent re-occurrence.

## 16. SHIFT CHANGES OR LEAVING EQUIPMENT LOCKED OUT OVERNIGHT

The nature of the work may require that a piece of equipment be left locked out overnight, or that a lockout situation extends into another shift. If a lock and/or tag must be left on overnight or into another shift, the following actions MUST be taken:

a. If the tag was not entered in the Lockout/Tagout Log - the lockout/tagout information must be entered on the Lockout/Tagout Log before the employee leaves for the day.

b. If the tag **was not** entered in the Lockout/Tagout Log - as indicated above, and another employee on a subsequent shift is to continue working on the equipment, the key for the lock must be transferred to the on-coming employee before the off-going employee departs. The off-going employee must also remove their tag and enter the tag information in the Lockout/Tagout Log. The on-coming employee receives the key, completes a tag with their name and information, enters the tag in the Lockout/Tagout Control Log, and affixes this new tag to the existing lock at the work site.

c. If the tag **was** entered in the Lockout/Tagout Log, and another employee on a subsequent shift is to continue working on the equipment, the key for the lock must be transferred from off-going to on-coming employee, the off-going employee must remove their tag, and the on-coming employee must complete a new tag (entering it in the Lockout/Tagout Log and installing it on the lock). If equipment is to be locked/tagged on a long-term basis the key will be transferred to a member of supervision and a new tag installed with this person's name on it. The tag must always match the name of the individual holding the key.

d. Information in the Lockout/Tagout Log. The on-coming employee receives the key, completes a tag with their name and information, enters the tag in the Lockout/Tagout Control Log, and affixes this new tag to the existing lock at the work site.

e. If the tag **was** entered in the Lockout/Tagout Log, and another employee on a subsequent shift is to continue working on the equipment, the key for the lock must be transferred from off-going to on-coming employee, the off-going employee must remove their tag, and the on-coming employee must complete a new tag (entering it in the Lockout/Tagout Log and installing it on the lock).

f. If equipment is to be locked/tagged on a long-term basis the key will be transferred to a member of supervision and a new tag installed with this person's name on it. The name on the tag must always match the name of the individual holding the key.

17. LOCKOUT/TAGOUT CONTROL LOG

The Lockout/Tagout Control Log is designed to keep track of lockout/tagout situations that extend past the shift in which the lock/tag is installed. Locks/Tags may be installed for a short duration (never extending past the current shift) without an entry into the Lockout/Tagout Control Log. However, if a lock or tag is to remain past the end of the shift in which they were installed, the employee MUST enter the lock and tag in the Lockout/Tagout Control Log before departing work for the day (See Shift Changes/Leaving Equipment Locked out Overnight Section for additional information).

18. DEFINITIONS

a. **Affected employee** - Any employee whose job requires them to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed.

b. **Authorized (Lockout/Tagout) User** - An employee who locks or tags out machines/equipment to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when their duties include performing servicing or maintenance. Only authorized employees may lockout or tagout equipment.

19. The proponent or this SOP is Area II Support Activity Safety Office.

20. POC for this SOP is Mr. Jeffrey Hyska, Area II Safety Manager at 738-4643/7207.

2 Encls

RONALD C. STEPHENS
COL, SC
Commanding

DISTRIBUTION:
A

## LOCKOUT/TAGOUT PROCEDURE CHECKLIST

### PREPARATION

1. Notify all affected supervisors ( )
2. Notify all affected employees ( )
3. Ensure that you know and understand:

   (a) Type of magnitude of energy to be locked out ( )

   (b) Location and type of isolating devices involved ( )
   (c) The method of lock out being employed ( )

### SEQUENCE OF LOCKOUT/TAGOUT

1. All preparation steps completed ( )
2. Take equipment or machinery out of operation by means of normal shut down procedure ( )
3. Operate the energy isolating device(s) ( )
4. Ensure that there is no stored energy ( )
5. Lock or tag out isolating device(s) and relieve or restrain any stored energy ( )
6. List all energy isolating device(s) locked or tagged out, or stored energy sources that are relieved or restrained ( )
7. Operate normal operating controls to ensure that the machine or equipment will not operate ( )
8. Ensure that all operating controls are returned to the neutral position ( )

### RESTORING TO NORMAL PRODUCTION STATUS

1. Ensure that all machine servicing and/or maintenance is complete ( )

Encl 1

2. Ensure that all tools, parts, mechanical locks and like items are removed from machinery or equipment ( )

3. Ensure that all guards, shrouds and safety devices are properly installed and operational ( )

4. Notify other personnel in the area and ensure that all personnel are clear of any potential hazard ( )

5. Remove lockout/tagout device(s) and mechanical restraint(s) ( )

6. Operate energy isolating device to restore power to machinery or equipment ( )

7. Inspect area to ensure that machinery or equipment is operational and safe for normal production ( )

8. Inform affected Supervisor(s) that machine is returned to normal production status ( )

9. Inform affected employee(s) that machine is returned to normal production status ( )

**LOCKOUT/TAGOUT REMOVED BY**

_____
Printed Name

_____ _____
Signature Date

## IRREGULAR REMOVAL OF LOCKOUT/TAGOUT PROCEDURE CHECKLIST

### PREPARATION

1. Notify all affected supervisors ( )

2. Notify all affected employees ( )

3. Ensure that you know and understand:

   (a) Type of magnitude of energy to be locked out ( )
   (b) Location and type of isolating devices involved ( )
   (c) The method of lock out being employed ( )

### REMOVAL OF LOCKOUT/TAGOUT DEVICE (S)

1. Ensure that all machine servicing and/or maintenance are complete. If not completed, ensure that a tag out is placed on the machine or equipment to prevent starting. ( )

2. Ensure that all tools, parts, mechanical locks and like items are removed from machinery or equipment. ( )

3. Ensure that all guards, shrouds and safety devices are properly installed and operational. ( )

4. Notify other personnel in the area and ensure that all personnel are clear of any potential hazard. ( )

5. Remove lockout/tagout device(s) and mechanical restraint(s) ( )

6. Inspect area to ensure that machinery or equipment is operational or that area is safe for employees after removal of energy isolating device(s) ( )

7. Inform affected Supervisor(s) that machine is returned to normal production Status ( )

Encl 2

8. Inform affected employee(s) that machine is no longer tagged out ( )

LOCKOUT/TAGOUT REMOVED BY

_____
Printed Name

_____ _____
Signature Date

Notes:

**DEPARTMENT OF THE ARMY**
**HEADQUARTERS, AREA II SUPPORT ACTIVITY**
**UNIT #15333**
**APO AP 96205-5333**

REPLY TO
ATTENTION OF:

IMKO-AB-SO

9 September 2005

COMMAND POLICY 10-8

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Area II Support Activity (SA) Confined Space Entry Program

1. REFERENCES:

a. AR 385-10, 29 Feb 00, The Army Safety Program

b. AR 11-34, 15 Feb 90, The Army Respiratory Protection Program

c. AR 40-5, 15 Oct 90, Preventive Medicine

d. EM 385-1-1, 3 Nov 2003, Safety and Health Requirements Manual,

e. 29 CFR 1910.146, Occupational Safety and Health Administration Standard, Permit-Required Confined Spaces for General Industry

f. 29 CFR, 1910.134, Occupational Safety and Health Administration Standard, Respiratory Protection.

g. Command Policy Letter 10-2, Area II Respiratory Protection Program and SOP.

h. ANSI Z117.1-1989, American National Standards Institute, Safety Requirements for Confined Spaces.

2. PURPOSE: Establishes guidelines and procedures for entry into confined spaces and provide information to all military, civilian, and contract employees who are required to enter and perform work in confined spaces within Area II This program addresses procedures:

a. To assure that only trained, qualified, and certified personnel perform duties involving entry or rescue operations within permit-required confined spaces.

b. To ensure personnel are properly equipped prior to entering a confined space.

**DEPARTMENT OF THE ARMY**
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a. To assure that only trained, qualified, and certified personnel perform duties involving entry or rescue operations within permit-required confined spaces.

b. To ensure personnel are properly equipped prior to entering a confined space.

c. To ensure the mission is accomplished in a safe manner, while reducing hazards for risk.

d. To ensure a risk assessment is thoroughly performed and conveys the potential risk at each site.

3. APPLICABILTY: This applies to military, civilian, and contract employee who are required to enter and perform work in confined spaces within Area II.

4. DEFINITIONS: See Appendix A

5. RESPONSIBILITIES:

a. Area II SA , Installation Commander:

(1) Provide sufficient funds, qualified personnel, and resources and delegate sufficient authority to subordinate unit commanders, activities directors, supervisors and division chiefs to implement the program.

(2) Appoint, in writing/on order, a qualified Confined Space Program Manager (CSPM).

b. Confined Space Program Manager (CSPM):

(1) Will be responsible for the implementation of the Area II Confined Space Entry Program and monitor the effectiveness of the program.

(2) Shall successfully complete a Confined Space Safety course conducted by Department of the Army, Air Force, Naval Occupational Safety and Health and Environmental Training Center (NAVOSH ENVTRACEN), or equivalent.

(3) Will make an evaluation of the Confined Space Entry Program following any mishap or other incident, and at least annually to ensure the effectiveness of the program.

(4) Provide a central point of contact for the installation confined space entry program.

(5) Review and approve unit's written confined space entry program and SOP.

(6) Verify trainings and certification of unit personnel

c. Area II Support Activity, Installation Safety Manager (at 738-4643):

(1) Develop the Area II Confined Space Entry Program.

(2) Provide guidance and technical assistance to subordinate unit commanders, activities directors/supervisors, and division chiefs regarding implementation of and compliance with elements of the Confined Space Entry Program.

(3) Assist units/activities/organizations in development and implementation of permit-required confined space entry program where needed

d. Industrial Hygiene (IH) Office, Area II (at 736-7564):

(1) Assist units/activities/organizations in identification of permit-required confined spaces and the potential atmospheric hazards.

(2) Provide assistance to units/activities/organizations in the development and implementation of permit-required confined space entry program where needed.

(3) Assist units/activities/organizations with the selection, procurement, proper use of personnel protective equipment including appropriate respiratory equipment, and atmospheric test/monitoring equipment required for specific permit-required confined space hazards and operations.

(4) Assist entry (on-site) supervisors in the interpretation of monitoring results.

(5) Provide technical advice and consultation on preventive medicine/industrial hygiene topics related to permit-required confined space entry operations to entry supervisors.

(6) Evaluate confined spaces for hazardous atmospheres and Immediately Dangerous to Life and Health (IDLH) conditions as necessary to meet mission requirements.

e. Unit Commanders, Activity Directors/Supervisors, and Division Chiefs:

(1) Appoint, on orders, a qualified person as the Unit Confined Space Coordinator (CSC). A copy of the order will be provided to the CSPM and Area II SA Installation Safety Manager.

(2) Evaluate the workplaces to determine whether the workplace is non-permit required confined space or permit required confined space. Use Permit-Required Confined Space Decision Flow Chart (See Appendix B).

(3) Develop listing and location of the confined space and provide the list to the CSPM, Area II SA Safety Manager, Fire Chief, and the 18th MEDCOM Industrial Hygiene Office.

(4) Ensure permit-required confined space warning signs, "DANGER, CONFINED SPACE, ENTER BY PERMIT ONLY" are installed at appropriate locations.

(5) Ensure all personnel assigned confined space duties are adequately trained and certified. All training records must be documented.

(6) Establish a unit written confined space entry program for each unit/organization/division conducting confined space entry operations. The written program will be submitted to the Area II SA, Installation Safety Manager for review.

(7) Review all non-permit confined spaces within their area of responsibility at least annually to ascertain that no changes have occurred which would affect the original classification.

(8) Ensure all personnel assigned confined space duties become familiar with the unit's confined space entry program and review the program as part of their refresh training.

(9) Procure and provide all necessary equipment and ensure it is properly used and maintained. Equipment must be calibrated according to manufacturer's specifications, and personnel must be trained on how to operate the equipment. When confined space work is performed by a contractor, ensure that the contractor has all equipment stipulated by the contract.

(10) Provide additional worksite-specific training for personnel designated to work in confined space operations within his/her unit/activity, that is, entry (on-site) supervisor, entrants, attendants, and rescue procedures, etc., to ensure they acquire and demonstrate the knowledge and skills necessary for the safe performance of their duties.

(a) Equipment procured for explosive atmospheres must be intrinsically safe/explosion proof. Minimum equipment requirements to perform designated work in the permit-required confined space are:

- Atmosphere testing and monitoring equipment.

- Ventilating equipment.

- Communications equipment.

- Personnel protective equipment.

- Lighting equipment.

- Barriers and shields for the protection of pedestrians and vehicles.

- Entry and exit equipment.

- All other equipment required by the standard, that is, signs, retrieval systems (tripod, full body harness, etc.).

(11) Implement a permit-required confined space system and ensure entry permits are completed and issued for each job/operation.

e. Unit Confined Space Coordinator (CSC):

(1) The personnel designated in writing by the organization's commander, activity directors/supervisors, and division chiefs to manage the activities where confined space entry has been identified through comprehensive job analysis. A copy of the orders will be provided to the CSPM and Area II SA Installation Safety Office.

(2) Conduct hazard assessment for the confined space (See Appendix E, Confined Space Hazard Assessment) to identify the sequence of work to be performed and to identify the specific hazards in the confined space.

(3) Document the location of each confined space with the information provided by the unit commanders, activity directors/supervisors, and division chiefs.

(4) Know the hazards that may be faced during entry, including the mode, signs or symptoms, and consequences of exposure.

(5) Ensure that requirements for confined space entry have been completed before entry is authorized and confined space monitoring is performed by personnel qualified and trained in confined space entry procedures.

(6) Notify the Fire Department before beginning and when completing confined space operations.

(7) Determine the entry requirements and review and approve confined space entry permit form. Forward the permit form to CSPM, Safety Office, Fire Department and IH office.

(8) Notify all involved employees of the permit requirements and post the permit in a conspicuous location near the job.

(9) Ensure that the permit is canceled when the work is done and ensure the confined space is safely closed and all workers are cleared from the area.

(10) Ensure that Material Safety Data Sheets (MSDSs) for any hazardous chemicals used in the operation will be available at the confined space worksite.

f. Entry (on-site) supervisor:

(1) Is the person who is a qualified and oversee entry operations.

(2) Determine if conditions are acceptable for entry. Measure the oxygen, flammable, and toxic hazard atmospheric concentrations. Determine the frequency of monitoring. Consult with the 18th MEDCOM Industrial Hygiene Office, if necessary.

(3) Notify Safety Office, Fire Department, and Industrial Hygiene Office before entry into any known Immediately Dangerous to Life or Health (IDLH) Permit Required Confined Spaces.

(4) Determine the number of attendants required perform the work and ensure the attendant knows how to communicate with the entrants and how to obtain assistance.

(5) Ensure measures are in place to keep unauthorized personnel clear of the area.

(6) Ensure a rescue team is available and instructed in their rescue duties.

(7) Terminate entry procedure as required.

g. Confined Space Entrants:

(1) Personnel who are granted permission to enter a confined space.

(2) Each individual should have attended a confined space training course.

(3) Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure. Stay alert to the hazards that could be encountered in a confined space.

(4) Read and observe the entry permit requirements.

(5) Be familiar with the use and handling of required equipment including personal protective equipment such as lifeline, respirator, or clothing needed for safe entry and exit.

(6) Immediately exit the confined space when ordered to do so by the attendant, an automatic alarms sound, they perceive they are in danger, or they notice physiological stress or changes in the themselves or co-workers (e.g., dizziness, blurred vision, shortness of breath).

h. Confined Space Attendant will:

(1) Remain outside the permit space during entry operations until relieved by another attendant.

(2) Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

(3) Maintain a sign-in/sign-out log with a count of all persons in the confined space and ensure all entrants sign in/sign-out.

(4) Monitor surrounding activities to ensure the safety of personnel.

(5) Maintain effective and continuous communication with personnel during confined space entry, work and exit.

(6) Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:

- If the attendant detects a prohibited condition;

- If the attendant detects the behavioral effects of hazard exposure in an authorized entrant;

- If the attendant detects a situation outside the space that could endanger the authorized entrants.

(7) Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards

i. Fire and, Emergency Service Division, DPW will:

(1) Provide rescue support for confined space entries for all permit-required confined space accidents

(2) Ensure the fire prevention representatives on confined space rescue teams are trained in confined space requirements. Each individual should have attended a formal confined space course. If the person has not attended a formal confined space course, the Fire Chief will ensure the person has adequate experience in confined space operations.

(3) When requested, assist unit commander or director in obtaining training for entrants, entry supervisors.

(4) Comply with emergency and rescue services required by 29 CFR 1910.146, paragraph k to ensure each member of the confined space emergency rescue team is proficient recognizing with properly performing rescue procedures.

j. Contracting Officer (CO) will:

(1) Ensure that the requirements of the Area II SA Confined Space Program are integrated into all applicable contracts, and that contractors understand when either they or their sub-contractors perform work on the installation or facility, they must adhere to the established guidelines set forth in the program document.

(2) Be informed of this requirement as well as the on-site construction rules that apply during the pre-construction conference.

k. Contracting Officer's Representative (COR) will:

(1) Ensure all construction contracts, prior to start of construction, include specific sections which address confined spaces, and that contractors comply with the USACE manual 385-1-1 IAW FAR 52.236-14. It is the contractor's responsibility to provide confined space entry protection to all workers exposed to confined space hazards, and to ensure that they have been properly trained.

(2) Receive a written confined space entry plan by contractor as part of the contract, which includes training requirements for their workers as well as subcontractor workers, and review it prior to approval. Confined space entry will be one of the main topics discussed during the Pre-Construction Conference.

7. GENERAL REQUIREMENTS:

a. Identification of Confined Spaces:

(1) All workplaces must be evaluated to determine if any spaces are permit-required confined spaces.

(2) The confined spaces will be classified as permit-required confined spaces or non-permit required confined spaces based on the degree of hazard as defined by this program. (See Appendix B, Permit Required Confined Space Decision Flow Chart.)

(3) Example of confined spaces includes storage tanks, tank cars, tank trucks, process vessels, enclosed valve boxes, pits, vats, boilers, steam drums, sewers, sewage pump stations, tunnels, pipelines, furnaces, sealed or isolated compartments of ships, aircraft, and air supply and exhaust ducts, or holes, trenches or cavities that exhibit little or no air movement.

b. Initial Testing and Evaluation of Confined Space Conditions:

Entry (on-site) supervisor, in coordination with the Unit Confined Space Coordinator, should test for and evaluate many factors prior to classifying a confined or enclosed space. Such evaluations will include, but are not necessarily limited to, the following considerations:

(1) The contents or previous contents of the space that may result in the presence of flammables, toxic materials, or oxygen-deficient or enriched atmospheres.

(2) The location and configuration of the space, including restricted access, obstructions, remoteness, etc., which may inhibit or interfere with movement, ventilation, rescue efforts, or fire fighting efforts.

(3) Potential hazards from the external environment, such as the proximity of liquid oxygen (LOX) storage operations, petroleum, oil, and lubricants (POL) storage areas, sewer and waste water treatment processes, and underground disposal sites, which could affect the atmosphere within the confined space.

(4) The types of operations that are conducted within the space, particularly those which by the very nature of the process produce toxic materials, flammables, oxygen depletion or enrichment, or ignition sources.

(5) Fixtures, devices, or equipment within the space that may create or contribute to hazardous conditions including piping systems, conduits, ducts, machinery, pressurized lines, etc.

(6) The presence of other hazards such as slippery surfaces, deteriorated or unstable portable ladders, irritant or caustic materials, etc. Pay attention to the condition of permanently-installed ladders, such as those with metal rungs embedded into concrete walls of manholes or other structures.

(7) The boundary spaces and their contents to ensure fire or explosion are not caused in these spaces by the operation being conducted.

(8) Initial testing that shall be performed from outside the space. Testing into the interior of the space may be performed by drop tests or insertion of sample probes and hoses into the space. Testing should be performed in the following sequence:

- Test oxygen content. Combustible gases are tested after tests for oxygen content because the threat of fire or explosion is more immediate and more life threatening, in most cases, than exposure to toxic gases and vapors. An oxygen deficient atmosphere has less than 19.5% available oxygen. Any atmosphere with less than 19.5% oxygen should not be entered without an approved self-contained breathing apparatus (SCBA). The oxygen level in a confined space can decrease because of work being done, such as welding, cutting, or brazing; or it can be decreased by certain chemical reactions (rusting) or through bacterial action (fermentation). Also, an oxygen-enriched atmosphere (above 21%) will cause flammable materials, such as clothing and hair, to burn violently when ignited. Therefore, never use pure oxygen to ventilate a confined space. Ventilate with normal air.

- Flammable Hazard: Many combustible gas indicators and (or) explosimeters require oxygen for proper operation (generally 10- to 30-percent oxygen by volume). Corrections for known flammable components, if different from the calibration gas, should be made according to the manufacturer's instructions. Flammable Atmospheres: Two things make an atmosphere flammable: 1) the oxygen in air; and 2) a flammable gas, vapor, or dust in the proper mixture. Different gasses have different flammable ranges. If a source of ignition (e.g., a sparking or electrical tool) is introduced into a space containing a flammable atmosphere, an explosion will result.

- Toxic Materials: Most substances (liquids, vapors, gases, mists, solid materials, and dusts) should be considered hazardous in a confined space.

c. Posting of Warning Sign:

(1) If the workplace is classified as a Permit-Required Confined Space, it must have permanent sign(s) in English and Hangul (Korean language) at each entrance into the space. Signs should read "DANGER -CONFINED SPACE- ENTER BY PERMIT ONLY, 위험 -밀폐공간임 – 허가를 받아야 출입할 수 있음". Sample of sign is shown at Appendix C.

(2) If the workplace is classified as a non-permit confined spaces, the entrance should be posted with the following sign, "DANGER - CONFINED SPACE, AUTHORIZED PERSONNEL ONLY", "위험 -밀폐공간임 –인가 받은자 만이 출입할 수 있음. Sample of sign is shown at Appendix C.

(3) Confined spaces will be secured with locks or barriers to prevent unauthorized entry.

d. Training:

(1) Training will be provided to personnel responsible for supervising, planning, entering, or anticipating in confined space entry and rescue.

(2) Topics to attain competency in:

- Identifying permit-required confined spaces.

- Recognizing and classifying the hazards of confined spaces.

- Preparing the work area (such as lock out/tag out and work area isolation procedures).

- Completing an entry permit.

- Implementing entry procedures.

- Use of powered ventilating equipment.

- Pre-Entry Atmospheric Checks and Post Ventilation Pre-Entry atmospheric check.

- Proper use of sampling equipment and sampling procedures.

- Periodic and/or continuous atmospheric monitoring procedure.

- Use of required personal protective clothing and equipment.

- Use of required personal protective clothing and equipment.

- Use of Respiratory protection equipment.

- Use of emergency rescue and safety equipment.

- Implementing emergency and rescue procedure.

- Medical screening requirements.

- Communications.

- Understanding of the written installation confined space program.

(3) Training will be conducted initially and retraining is required when:

- There is a job change.

- There is a change in the permit space program.

- When the worker's job performance shows deficiencies.

(4) Verification and documentation of all training:

- All training records will be documented and reviewed.

- Periodic assessment of the effectiveness of employee training should be conducted by a qualified person.

e. The Entry Permit:

(1) An entry permit is a formal authorization to perform work in permit-required confined space.

(2) An entry permit in a permit required confined space will be prepared and completed by a trained and qualified entry (on-site) supervisor and approved by the Unit CSC.

(3) "CONFINED SPACE ENTRY PERMIT FORM" is provided in Appendix D. Confined Space Entry Permit will address the following information:

(a) Specify the location of confined space and type of work to be accomplished.

(b) Specify the duration of the operation (hour/date/month/year).

(c) Specify the confined space classification.

(d) Specify the names of the individuals working in the confined space.

(e) Certify that the work area has been prepared properly.

(f) Specify the results of atmospheric gas test.

(g) Certify that the testing equipment has been calibrated according to the manufacture's recommendations.

(h) Specify the type and amount of personal protective clothing and equipment required for the operation.

(i) Certify that special entry precautions have been taken.

(j) Certify that a rescue plan has been devised and rescue equipment is in place.

(k) Specify phone numbers of emergency contacts including medical contact, activity supervisor, the safety officer, and the fire and emergency service division.

(l) Certify that workers have undergone all training required.

(m) Indicate the entry supervisor's authorization with his signature and date/time of authorization.

(4) The confined space entry permit shall be clearly posted at the point of entry into the confined space. When the assignment is completed or when new conditions exist, the entry supervisor must terminate entry and cancel permits.

f. Rescue Procedures:

(1) Self Rescue: Self-rescue is achieved when authorized entrants leave the confined space on their own, which is the desired situation.

(2) Non-entry rescue: If self-rescue is not possible, non-entry rescue is the next preferred method, which is, retrieving an entrant using attached full body harness and mechanical tripod (retrieval system equipment). During non-entry rescue, the attendant will not enter the confined space. A retrieval system is required anytime an authorized entrant makes entry into a vertical permit-required confined space more than 6 feet deep, unless usage would create a greater hazard to the entrant. The retrieval system must be attached to a fixed point outside the confined space.

(3) Entry Rescue: Entry rescue involves rescuers entering the space to retrieve the entrant and/or provide the victim with emergency assistance such as CPR, first aid, and air via self contained breathing apparatus (SCBA) or a supplied air respirator (SAR), if needed. Rescuers should wear SCBA or SAR. Do not use air purifying respirators for confined space rescue. An entry rescue plan needs to be developed ahead of time in the event of an emergency for which the non-entry rescue plan is not appropriate.

(4) Emergency Rescue:

- Provision for emergency rescue must be planned and established before any entry into a permit-required confined space is authorized.

- Fire and Emergency Services Branch, DPW is the only authorized agency to enter the confined space and perform emergency rescue by properly trained and authorized personnel.

- Emergency and rescue services will be performed by procedures required by paragraph *k* of 29 CFR 1910.146.

g. Equipment: The following safety equipment will be required as minimum.

(1) Oxygen and gas detectors and other sampling devices as needed and determined by a qualified person to test for flammable, oxygen deficient and toxic atmosphere.

(2) Blowers and ventilation equipment designated for entering confined spaces.

(3) Personal protective equipment for the eyes, face, head, and clothing such as chemical resistant coveralls, and rubber boots.

(4) Respiratory protection as determined by the qualified person based upon the conditions and test results of the confined space and the work activity to be performed.

(5) A body harness and attaching life line.

(6) A tripod or other lifting device capable of retrieving entrants from a confined space. Unless the only hazard present is a potentially hazardous atmosphere and mechanical ventilation can be demonstrated to maintain acceptable entry levels for contaminants.

(7) Where there is potential for flammable atmospheres, all tools and electrical equipment shall be approved for hazardous locations.

(8) Communications equipment as needed.

(9) Properly rated lighting equipment to enable employees to work safely.

8. NON-PERMIT CONFINED SPACE ENTRY REQUIREMENTS.

a. "Non-permit confined space" means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm. And the space has been demonstrated to pose only an actual or potential hazardous atmosphere, and can be maintained safe with forced air ventilation alone.

b. Inspection: Confined space classified as non-permit spaces must be monitored and inspected initially and periodically re-evaluated by a competent person to determine if the classification is still applicable. If conditions change the space may be reclassified as a permit-required confined space.

c. Training: All personnel entering a non-permit required confined space must receive the same training as required for a permit required confined space.

d. Ventilation: Forced air ventilation shall be used. The air supply for the forced air ventilation shall be from a clean source and not increase the hazard in the space.

f. Approval: All personnel involved with non-permit confined space entry activities must have Unit CSC authorization to perform work activities within the space.

9. RECORD KEEPING REQUIREMNT: A copy of the following documents must be maintained by the indicated personnel.

a. Unit Confined Space Entry Program: Unit Commanders/Activities Director/Supervisors.

b. Identification and Classification List of Confined Spaces in Area II: CSPM

c. Employee's Training Document: Unit Commanders/Activities Director/Supervisors.

d. Confined Space Entry Permit Form (See Appendix D): CSPM and Confined Space Entry (On Site) Supervisor.

e. Duty Appointment Letter of Unit CSC: Unit Commanders/Activities Director/Supervisors/Confined Space Entry Supervisor.

10. Point of contact is Mr. Jeffrey Hyska, Area II SA Safety Manager at 738-4643/7206 and e-mail address is JeffryM.Hyska@korea.army.mil

RONALD C. STEPHENS
COL, SC
Commander

Encl
Appendix A-E

DISTRIBUTION
A

# Appendix A

## DEFINITIONS

***Acceptable Entry Conditions***: The conditions that must exist in a permit-required confined space to allow entry and to ensure that personnel involved with a permit-required confined space entry can safely enter into and work within the spaces.

***Attendant***: A properly trained person stationed outside a permit-required confined space that monitors authorized entrants and performs all attendants duties assigned.

***Authorized Entrant***: A properly trained person authorized by the supervisor to enter and work in a permit-required confined space.

***Blanking/Blinding***: The absolute closure of a pipe, line, or duct by the fastening of a solid plate that completely covers the bore and is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

***Confined Space***: Spaces are enclosures not designed for routine occupancy which an employee may need to enter to perform work. In general, such spaces have poor ventilation, have limited means of entry or egree and contain potential and/or known hazards. Numerous confined spaces are can be found on most Army installations. Examples include storage tanks, pits, boilers, sewers, underground utility vaulys, tunnels, and manholes. Personnel entering such spaces may encounter a variety of hazards, including:

- Lack of sufficient oxygen to support life
- Excessive oxygen which increase the danger of fire or explosion
- The presence of flammable or explosive atmosphere or materials
- The presence of toxic toxic atmospheres or materials
- Physical hazards such as
    (1) Slippery surfaces
    (2) Conduits
    (3) Cables, protruding sharp objects or other obstructions to passage
    (4) Deteriorated or unstable ladders
    (5) Machinery and electrical devices that require energy isolation (lockout/tagout procedure), etc.

(6) Engulfment, poor illumination often compounds these hazards

***Double Block and Bleed***: The closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

***Emergency***: Any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

***Engulfment***: The surrounding and effective capture of a person by a liquid or finely divided solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

***Entry***: The action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

***Entry Permit***: The written or printed document given by the Entry Supervisor to allow and control entry into a permit-required confined space.

***Entry Supervisor***: The person responsible for determining acceptable entry conditions are present at a permit-required confined space where entry is planned , for authorizing entry and overseeing entry operations, and for terminating entry.

***Hazardous Atmosphere***: An atmosphere that may expose personnel to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

(1) Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFT).

(2) Airborne combustible dust as a concentration that meets or exceeds its LFL. (Dust obscures vision at a distance of five feet or less).

(3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent.

(4) Toxic air contaminants in excess of permissible exposure limits or threshold limit value.

(5) Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

***Hot Work Permit***: An employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of proving a source of ignition.

***Immediately Dangerous to Life or Health (IDLH):*** Any conditions that pose an immediate or delayed threat to life; which would cause immediate or delayed adverse health effects or that, would interfere with a worker's ability to escape unaided from a permit-required space.

***Inerting***: Displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible

***Isolation***: Positively preventing any unwanted form of energy (or other agent with a serious potential for hazard) from entering the confined space through the use of blanking, double block and bleed, or lockout and (or) tagout.

***Line Breaking***: The intentional opening in a confined space of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, inert gas, or any fluid at volume, pressure or temperature capable of causing injury.

***Non-permit confined space***—A space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazards capable of causing death or serious physical harm.

***Lower Explosive Limit***: Lower Explosive Limit (or lower flammable limit) is minimum the concentration of vapor in air to form an ignitable mixture.

***Non-Permit Confined Space***: A confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

***Oxygen-Deficient Atmosphere***: An atmosphere that contains less than 19.5 percent oxygen by volume.

***Oxygen Enriched Atmosphere***: An atmosphere that contains more than 23.5 percent oxygen by volume.

***Permit-Required Confined Space (Permit Space):*** A confined space that has one or more of the following characteristics:

(1) Contains or has the potential to contain a hazardous atmosphere;

(2) Contains a material that has the potential for engulfing an entrant;

(3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or

(4) Contains any other recognized serious safety or health hazard.

***Permit System:*** The employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

***Prohibited Condition:*** Any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

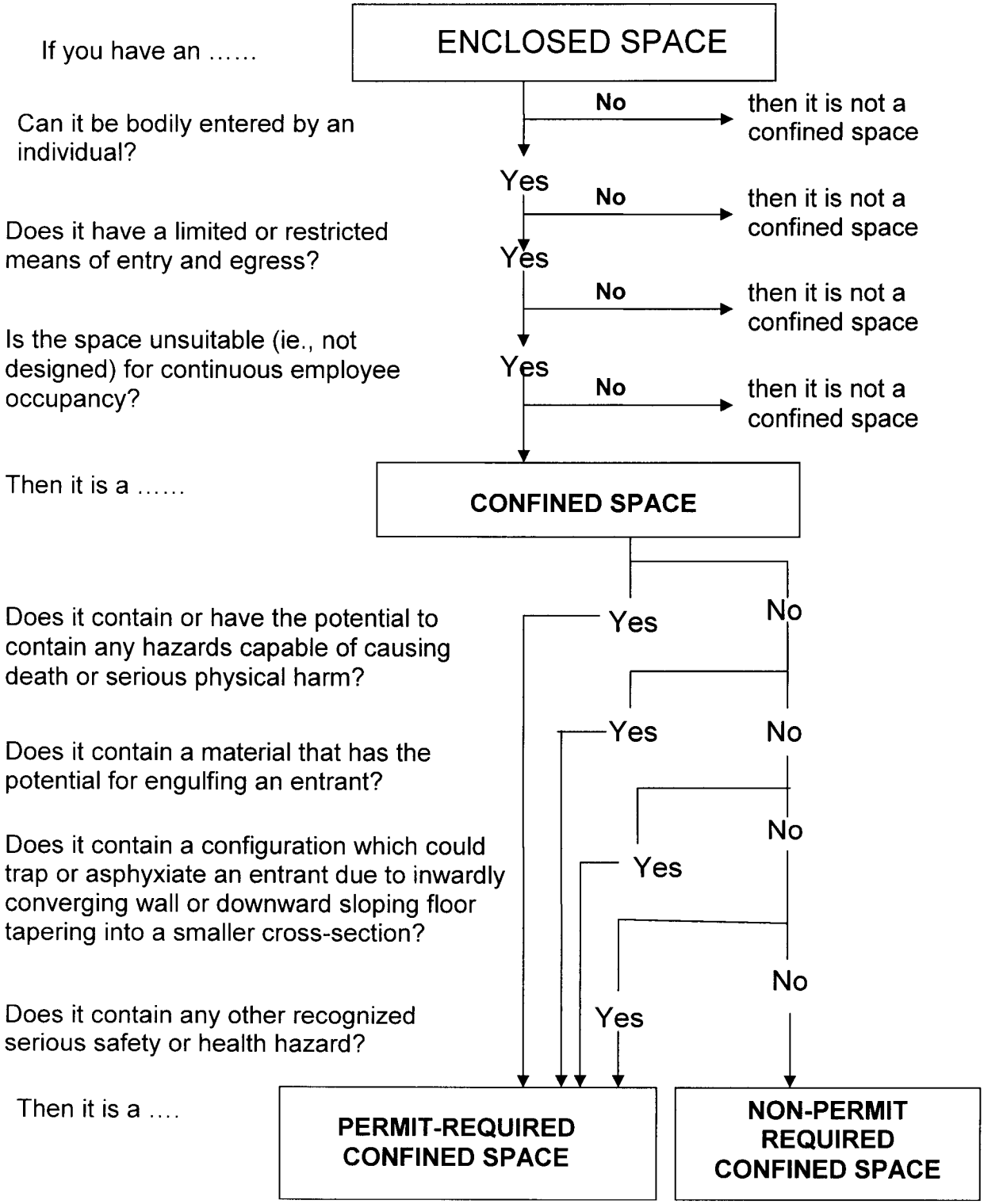
***Rescue Service*:** The personnel designated to rescue employees from permit spaces.

***Retrieval System*:** The equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

***Testing:*** The process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

## Appendix B

## PERMIT-REQUIRED CONFINED SPACE DECISION FLOW CHART



## Appendix C


DANGER
CONFINED
SPACE
ENTER BY PERMIT ONLY


DANGER
CONFINED SPACE
AUTHORIZED
PERSONNEL ONLY

# Appendix D

## Confined Space Entry Permit Form

(Page 1 of 2)

| | | | |
|---|---|---|---|
| **Date & Time Issued** | | **Date & time Expires** | |
| **Space I.D.** | | **Supervisor** | |
| **Equipment Affected** | | **Task** | |
| **Standby Team Members** | | | |
| | | | |
| **Hot Work Type** (circle) | Welding | Cutting | Brazing Grinding |
| **Confined Space Hazard Assessment (See Appendix E)** has been reviewed by Entry Supervisor and Rescue Team Members and is correct. | | _____ Entry Supervisor Signature | |
| Pre-entry brief has been conducted with Entrants, Attendants and Rescue Team Members. | | _____ Entry Supervisor Signature | |

| **1. Pre-Entry Atmospheric Checks** | | | |
|---|---|---|---|
| Time (am - pm) | | | |
| Oxygen | | | |
| Explosive ( % LEL) | | | |
| Toxic (PPM) | | | |
| Testers Signature | | | |

| **2. Pre-entry Fluid System Isolation** | **Yes** | **No** | **N/A** | **Notes** |
|---|---|---|---|---|
| Pumps /lines blinded, blocked, disconnected | | | | |
| **3. Ventilation Source Established** | **Yes** | **No** | **N/A** | |
| Mechanical Forced Air | | | | |
| Natural Ventilation | | | | |

| **4. Post Ventilation Pre-Entry Atmospheric Checks** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Time | | | | | | | |
| Oxygen (%) | | | | | | | |
| Explosive ( % LEL) | | | | | | | |
| Toxic (PPM) | | | | | | | |
| Tester Signature | | | | | | | |

**5. Communication Procedures**

____ **Wireless Radio** ____ **Line Radio** ____ **Verbal from Access**

# Confined Space Entry Permit Form

(Page 2 of 2)

**6. Rescue Procedures**

____ Self Rescue ____ No-entry Rescue ____Rescue Team Entry

**7. Training Verification**

The following persons successfully completed required training and training is current for the space to be entered

| Position | YES | NO |
|---|---|---|
| All persons entering Confined Space | | |
| All persons acting as Supervisor for the Entry | | |
| All persons assigned backup positions | | |
| All persons assigned to monitor access and interior activities | | |
| All persons assigned to emergency rescue team | | |

**8. Entry & Rescue Equipment on Scene**

| Description | Type | YES | NO | NA | Description | Type | YES | NO | NA |
|---|---|---|---|---|---|---|---|---|---|
| Gas Monitor | | | | | Life Line | | | | |
| Safety Harness | | | | | Hoisting Equipment | | | | |
| Fall Arrest Gear | | | | | Communication Equipment | | | | |
| SCBAs | | | | | Air Line Respirators | | | | |
| Protective Clothing | | | | | Electrical Gear Rating | | | | |
| Fire Extinguishers | | | | | | | | | |

**9. Periodic Atmospheric Checks**

| | | | | | | |
|---|---|---|---|---|---|---|
| Time (am - pm) | | | | | | |
| Oxygen | | | | | | |
| Explosive ( % LEL) | | | | | | |
| Toxic (PPM) | | | | | | |
| Testers Signature | | | | | | |

A review of the work authorized by this permit and the information contained on this Entry Permit. Written instructions and safety procedures have been received and are understood. Entry cannot be approved if any squares are marked in the "No" column. This permit is not valid unless all appropriate items are completed.

**Permit Prepared and Completed By:** (Entry On-site Supervisor)

(Print name) (Signature) Date

**Approved By:** Unit Confined Space Coordinator (Unit CSC)

(Print name) (Signature) Date

# Appendix E

## Confined Space Hazard Assessment

(Page 1 of 3)

Space _____ Date Assessment Last Modified _____

| 1. Confined Space - must meet all the below criteria | | Permit Required Confined Space must be a confined space and meet any one of the below criteria | |
|---|---|---|---|
| | Is large enough or so configured that an employee can bodily enter and perform work... AND | | Contains or has a potential to contain a hazardous atmosphere... OR |
| | Has limited or restricted means for entry or exit AND | | Contains a material that has the potential for engulfing an entrant... OR |
| | Is not designed for continuous employee occupancy. | | Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly covering walls or by a floor which slopes downward and tapers to a smaller cross-section... OR |
| | | | Contains any other recognized serious safety or health hazard |

**2. Authorized Entry Points**

| | Top | | Side | | Bottom |
|---|---|---|---|---|---|

| Hazards | Source/Type | Quantity & Quality (1) | | Severity (Rate 1 to 5) | Hazard Abatement Method |
|---|---|---|---|---|---|
| Explosive Atmosphere | | | ___ LEL(2) | | |
| Combustible Material | | | | | |
| Electrical Circuits | | | | | |
| Toxic Gases | | | ___ PEL | | |
| Toxic Material | | | | | |
| Thermal Hazards | | | ___ $^0$F | | |
| Machinery | | | | | |
| Slip / Fall Hazards | | | | | |
| Engulfment Hazards | | | | | |
| Entrapment Hazards | | | | | |

**3. Personal Protective Equipment Required**

| Check | Type | | Check | Type | Check | Type |
|---|---|---|---|---|---|---|
| | Gloves | | | Hearing Protection | | Hard Hat |
| | Coveralls | | | Safety Glasses | | Goggles |
| | Air Supplied Respirator | | | Air Purifying Respirator (3) | | Acid / Org / DMF / N / R / P |
| | SCBA | Line Fed | | | | |

**4. Ventilation Requirements**

| | |
|---|---|
| | **Space Volume in cubic feet** |
| | **Natural circulation** - no atmospheric hazards in the space - additional ventilation may be required for worker comfort, hot work, grinding or other operations that would produce airborne fumes, mist or dust. Entry Supervisor must assess additional ventilation requirements based on tasks to be performed in the space prior to time of entry |
| | **Mechanical ventilation** required for venting hazardous atmospheric contaminants |

| Supply | | Exhaust | | Local (4) | |
|---|---|---|---|---|---|
| Volume | _____CU/FT per Min | Volume | _____CU/FT per Min | Volume | _____CU/FT per Min |
| Point (5) | | Point | | Point | |

# Confined Space Hazard Assessment
(Page 2 of 3)

## 5. Ventilation Formulas & Requirements

| 20 Air Changes Per Hour | Adequate Blower Capacity (ABC) | Initial Purge Time |
|---|---|---|
| (ACH) required for duration of entry<br>20 ACH = Space volume X 20 | ABC = $\frac{\text{Space Volume x 20 ACH}}{\text{60 Minutes}}$ | $\frac{\text{7.5 x Space volume}}{\text{Effective Blower Capacity}}$ |

## 6. Required Rescue & Safety Equipment (check if required)

| | | | |
|---|---|---|---|
| | Life Line | | Man Winch |
| | Body Harness | | Fall Arrest Unit |
| | Floor level opening barrier | | Emergency Retrieval Line |
| | Tripod | | Blower |
| | Class I, Division I, Group D Electrical Equipment (6) | | Vent Saddle |
| | Powered Communication | | Vent Trunks |
| | Portable Lighting | | Ladder |
| | Atmospheric Monitor Make & Model | | Emergency Escape Respirators |

## 7. Acceptable Entry Conditions

| | | | |
|---|---|---|---|
| | Confined Space Entry permit posted | | Lockout electrical components in space |
| | Oxygen 19.5 – 23.5% | | Lockout mechanical components in space |
| | Lower Explosive Level I0% | | Lockout all pipes to and from space |
| | Toxic fumes/vapors less than PEL | | Forced Mechanical Ventilation Established & Maintained |
| | No engulfing material in space | | No hazardous chemicals or material |
| | Continuous Air Monitoring | | Rescue Team Available (7) |
| | Space Drained - Flushed | | Pre-entry brief completed |
| | Max Internal temperature _____ $^0$F | | Minimum Internal Temperature _____ $^0$F |
| | Training verified for supervisor, entrants and attendants | | Training verified current for all Rescue Team Members |

## 8. Communication Procedures - between attendant & entrants

**____ Wireless Radio ___ Line Radios ___ Verbal from Access**

## 9. Rescue Procedures

**____ Self Rescue ___ Non-entry Rescue ____ Rescue Team Entry**

## 10. Notes

## Confined Space Hazard Assessment
(Page 3 of 3)

**11. Foot Notes**

**(1) Quantity & Quality** - List volume or amount of material. For gases/dust/fumes, list the concentrations. For electrical hazards, list voltage

**(2) LEL** - Lower Explosion Level - lowest % of concentration in which an explosion could occur.

**(3) Air Purifying Respirator** - select type of filter or cartridge required - Acid Gas, Organic Vapor, (N) Not Oil Resistant, (R) Oil Resistant, (P) Oil Proof, (DMF) Dust- Mist-Fume

**(4) Local Ventilation** - provide for worker comfort or for drawing away fumes or airborne particles caused by expected work in the space.

**(5) Point** - list location for entry of supply, local or exhaust ventilation.

**(6) Class I, Division I, Group D** - refers to hazardous locations that require explosion proof electrical equipment

**(7) Rescue team** - required to be at access point for entries into spaces with IDLH (immediately dangerous to life and health) atmospheric condition. For all other entries, rescue team must be readily available.

**Reviewed By** Confined Space Operation Personnel

| (Print name) | (Signature) | Date |
|---|---|---|

And

**Reviewed By** Entry (On-Site) Supervisor

| (Print name) | (Signature) | Date |
|---|---|---|